# WAGE PAYMENTS AT NEVADA TEST SITE

## HEARING

BEFORE THE

## JOINT COMMITTEE ON ATOMIC ENERGY

## CONGRESS OF THE UNITED STATES

EIGHTY-SECOND CONGRESS

SECOND SESSION

ON

WAGE PAYMENTS AT NEVADA TEST SITE

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JANUARY 30, 1952

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# WAGE PAYMENTS AT NEVADA TEST SITE

WEDNESDAY, JANUARY 30, 1952

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*Washington, D. C.*

The Joint Committee met at 2:10 p. m., pursuant to call, in room 324, Senate Office Building, Senator Brien McMahon (chairman), presiding.

Present also: William L. Borden, executive director, Joint Com- (vice chairman), Senators Anderson, Hickenlooper, Millikin, Knowland, and Bricker, Representatives Price, Cole, and Elston.

Present also: William L. Borden, executive director, Joint Committee on Atomic Energy.

The CHAIRMAN. Gentlemen, the meeting will come to order.

Yesterday the press carried a story, out of Los Angeles, that arose out of a hearing there, to the effect that a plumber had received $756 for 1 week's work at the Nevada test site; and other indications occurred in the story, or rather other information, which indicated that this was not a single instance, but that it had occurred numerous times. Now, it is essential that in this program there be public confidence, and anything that occurs to disturb that confidence must be immediately investigated and the public informed as fully as we can inform them of what the facts are.

After consulting with some of the members of the committee, it was decided to immediately call this hearing, make it an open hearing, and get the facts. So, Mr. Dean and members of the Commission are here today for the purpose of telling us what the facts are on any question that arises.

Is this prevalent through the whole program, or is it not?

## STATEMENT OF GORDON E. DEAN, CHAIRMAN, ATOMIC ENERGY COMMISSION; ACCOMPANIED BY CARROLL L. TYLER, MANAGER, SANTA FE OPERATIONS OFFICE; MARION W. BOYER, GENERAL MANAGER, AEC; E. J. BLOCH, DIRECTOR, CONSTRUCTION AND SUPPLY DIVISION, AEC; AND REUBEN E. COLE, DIRECTOR OF ENGINEERING AND CONSTRUCTION, SANTA FE

Commissioner DEAN. No; this is a very unusual situation.

The CHAIRMAN. You go right ahead, Mr. Dean. We will develop it as we go along.

Commissioner DEAN. If I may say at the outset, while the news of this excessive wage paid to this plumbing superintendent did not come to my own personal attention until yesterday afternoon, we have

brought enough people on, I think, from the West, from the Santa Fe operations office, and from the test site, so that we can answer any of the questions, or I hope we can, that any of the members of the committee have.

I think it would be useful at the outset, though, and I think it would dispel a little confusion, if, since this is a very complicated site and has various construction areas, we were to label those, and if I were to indicate somewhat the atmosphere in which this sort of abuse can take place.

Senator KNOWLAND. Might I ask, Mr. Dean, if you do not mind the interruption, because I may have to leave for another meeting in a hurry: Is the fact correct that he received $756?

Commissioner DEAN. That is correct, Senator. That is correct.

As you know, and if I may go back a little bit in history—I will try to be very brief—the purpose was to give to Los Alamos the character of a place where they could make a quick test of ideas and thus dispense with these very costly and very time-consuming trips to Eniwetok. Our first test was conceived in December of 1950. We shot the thing, the first shot of Nevada, in February of 1951. As a result of those tests, we learned certain things, developed certain components, which have gone completely into our stockpile, and we have the benefit of them today.

In the meantime, we had last spring a test series out at Eniwetok. The things learned in the February test at Nevada, the things learned at Greenhouse—that is, Eniwetok—indicated to us the importance of having a much more complicated fall test, in the fall of 1951 at Nevada; and also it indicated to us the importance of not having just a shack or two, which the people at Los Alamos could run out to, but a permanent testing ground. This meant construction. It mean construction in really three separate areas: first, a construction camp, which is located about 65 miles from Las Vegas; second, an area in addition to that, which we might term the control center, which is some 25 miles beyond; and a third, the shot area or zero area, where such things as towers and structures, which are demolished, in the shot, are maintained.

So, if you keep those three things in mind, I think we can keep the contractors in mind and the problems in mind.

Now, the first area, the construction area, employed at its peak I would say something like 1,500 people. It was both temporary for the construction workers working at other places around there, and it was permanent in that we built there also some semipermanent buildings, largely to house scientific and other personnel, who would have to spend a month or more, let's say, in the area.

That construction area was built under a lump-sum contract by a firm by the name of Lembke-Clough & King. The subcontractors, I believe, were all lump sum except the plumbing and electrical subcontractors. The contractor who built the power plant and the one who constructed the roads were lump-sum contractors.

Then we move up to the second area, which is the control post. There are several little buildings in that complex, but the most important building, and I believe the building in which this plumbing foreman was working, Mr. Stewart, was the control post. Now, this is the nerve center of a test operation. This is where everything ties in. It is where the buttons are pushed, and so forth.

We originally set a schedule for the fall operations of October 1st for the first shot. We started construction in March of 1951. We started, which is very unusual for us anywhere in the program, on a 54-hour workweek, because the time was short. We had to have the control posts ready for the 1951 fall shots.

The concern which was given the contract to build the control post was the firm of McNeil. This was on a lump-sum contract again. McNeil did not have the building completed in the time specified, which was sometime about the middle of August. We gave them an extension of 35 days, bringing them up into about the 19th or 20th of September.

Is that right?

Mr. TYLER. The 23d of September.

Commissioner DEAN. The 23d of September. On the 23d of September, he hadn't finished the job. We felt he was lagging behind badly. The completion contract was taken away from him at the close of business on September 28, and in an effort to get it done the contract was let on a cost-plus-fixed-fee basis to the Haddock Engineers, Ltd. Their only contract at that time was a cost-plus-fixed-fee contract to operate and maintain the construction area and to build the structures for two of the shots in this series; structures such as concrete walls, towers; various other things that we wanted to have tested. You couldn't very well do that on a lump-sum basis. Now, that is Haddock's work at Nevada test site.

We turned to Haddock in the last days immediately before the test and asked them to complete it, which was done. I happened to have been at that control post about 3 weeks before test time. The sense of urgency is something that can't be appreciated unless you are there just before test time, with 600 scientists convening and with all of your construction workers around, with everybody tense, and particularly when there is some item in the program which must be completed before the test can be run off.

Senator KNOWLAND. What is the final cost of the control post that had been conducted with the subsequent changes for $660,000?

Mr. TYLER. That has not yet been quite completed. We had to accept it in the middle of the operation.

Senator KNOWLAND. What is the cost up to this time?

Mr. TYLER. We think it will run very close to $660,000, but probably about $50,000 more, due to the delay in shipments.

Commissioner DEAN. One of the important things to have done right before test time, since this is a building that has no windows and is especially designed so that it can take very heavy pressure, is that it had to be heated. Because in this time out in Nevada it gets cold, the heating system and plumbing system were vital for the operation of that test service.

That is the situation right up to test time. I think you will find that the week in which he was paid $756—and I don't say this by way of apology for it. I think this is too long for a man to work and too much money for him to get. I simply give this picture to give you the atmosphere in which this kind of thing can happen when you are under the gun to get on with a test.

Senator KNOWLAND. Of course, I do not see how you can get any of the employees of a contractor at a contract price if there is this constant raiding of his employees, and if they are getting, whether it be

the total $756 or any approximation of it. It seems to me that you will have a very difficult time, with this history you have given us today, in finding any other contractor who would be willing to make a firm bid contract.

Commissioner DEAN. On a lump sum?

Senator KNOWLAND. On a lump sum. Because he has this record of constantly having the cost-plus contractor raid his employees, and then finally, because he cannot keep up on the requirements for completion, the contract is taken away from him.

Senator HICKENLOOPER. It is even more significant than that. The contract is taken away from the fellow that has his labor pirated by another company and given to the company that pirated the labor that apparently prevented the original man from completing his contract.

That is the matter I would like to have you discuss.

Commissioner DEAN. I cannot give you all the detail on who went from which project. I do know in this particular case, and correct me if I am wrong, Captain, that Mr. Stewart was working for the lump-sum contractor, and he stayed on. The job may have been slightly different. I notice he was a superintendent in these last weeks just before test. But he stayed on in the very same job under the other contractor.

Senator KNOWLAND. No; he was working for the competitive engineers, who, as I understand it, are the cost-plus-fixed-fee people.

Commissioner DEAN. Haddock was the outfit that took over the control post after this McNeil company lost it. And the week we are talking about was the week he was working for Haddock. He had previously worked for McNeil.

Representative PRICE. Was that the only week compiled in the payroll?

Commissioner DEAN. No. There are other weeks. But this is the largest amount of money in any one week this man ever got.

Representative PRICE. Have you any idea what some of the other weeks were?

Commissioner DEAN. Mr. Cole has those figures handy.

Do you have them for this same man?

Senator KNOWLAND. For other men, I think it would be good to have the figures, to see what was done; and, even though it did not reach this fantastic figure, it would be well to show what it did reach in some instances.

Commissioner DEAN. Do you have the week before for this and other men?

Mr. COLE. For the week in question it was $756. For the week ending October 9, he was paid $617. For the week ending October 2, he was paid $385. These are the 3 weeks he was on Haddock's payroll.

Senator HICKENLOOPER. He went up pretty fast, that fellow.

Senator ANDERSON. How can a man work 24 hours in the day? Is the answer not that his work was not available for him at all times, and he would stop and rest between periods until the next job came along?

Commissioner DEAN. I do not want to be too precise in my answer, because I don't know. But I note here the fact that he was a superintendent, as distinguished from a journeyman, which would make a

difference. You couldn't ask a journeyman plumber to keep on the job working at the rate this man was going, because all he was getting was 6 hours of sleep a night, as I reckon it. This averages out at 6 hours a night.

Senator KNOWLAND. For that Monday, he has 8 hours at straight time and 16 hours at double time? That is not 8 hours straight time counted as double time, making it 16, but 16 hours' work for which he was paid double time. Is that correct? So, he works a full 24 hours in that day.

Commissioner DEAN. On Monday he worked full time, right through the clock.

Senator KNOWLAND. It seems rather fantastic to me.

Representative PRICE. Was he the only superintendent you had on the job?

Mr. TYLER. The only plumbing superintendent; yes, sir.

Senator ANDERSON. Mr. Dean, with reference to Senator Knowland's question, as to whether this so-called pirating of workers from the lump-sum contractor to the cost-plus contractor would make it impossible to get lump-sum bids: Did that actually happen? Or have you not been able to get all the lump-sum bids you wanted out there right along?

Mr. COLE. We have advertised additional work since that time, Senator, and have had a good response. In one instance, I remember we had 14 bids.

Senator KNOWLAND. Was that before or after this story broke?

Mr. COLE. That was after McNeil's contract was terminated, but before this story came out.

Senator KNOWLAND. Of course, they might not have had knowledge of what went on under the circumstances. You may find that we may at least want some questions answered here afterward.

Commissioner DEAN. We had some lump-sum contractors out there who were paying what I would think was a very substantial sum for individual men for a given week, running up as high as $500 in some weeks. But they figured this in and took it out of their own cost.

Representative COLE. What was this man, Stewart, receiving when he was working for the lump-sum man?

Mr. COLE. Those figures we do not have.

Commissioner DEAN. We can supply that for the record.

(The information referred to is as follows:)

M. H. Stewart was on the payroll of A. G. Sylvester Plumbing Co., subcontractor for the McNeil Construction Co. While on that payroll his earnings were as follows:

| Week ending— | *Amount earned* |
|---|---|
| Sept. 4, 1951 | $250 |
| Sept. 11, 1951 | 250 |
| Sept. 18, 1951 | 250 |
| For Sept. 26, 27, 28 | 126 |

Representative COLE. Is it not a fact that the reason the lump-sum man was not able to complete on time was because he was losing his employees to the cost-plus contractor?

Commissioner DEAN. That I don't know, actually. Mr. Tyler?

Mr. TYLER. I would like to say this for the record, gentlemen. This being an open hearing, I would like to answer all questions, but I just want to call attention to the fact that Mr. McNeil has appealed

his case, and there is a Board in Los Angeles at the moment hearing his appeal. And I have so far made no comment on the justice of it on either side until the Board has made their finding. It is an impartial Board. I merely want to call that to your attention, sir.

The CHAIRMAN. Thank you, but all we want are all the facts. And I am for them coming out here, no matter who they serve in some other area. Let the facts serve whoever should be served. But there should be no desire to hold back any facts on the ground that it might be prejudicial one way or another. The facts are the facts.

Commissioner DEAN. Of course, that is right, sir.

The CHAIRMAN. And what we have to have are the facts now. Because I would like to emphasize to you that last night, for instance, I listened to one radio commentator, and he said the cost of the Savannah River project was guessed at some six-hundred-million-odd dollars, and now it is $1,200,000,000. Maybe the explanation of that lies in this Nevada story of a $756-a-week plumber, who was not even a foreman plumber, according to this commentary.

Now, I think you will agree with me that, if the facts do not warrant this, we want to bring them out here; that we are not permitting $750 a week throughout this program. And I think every factor bearing on this, good or bad, we have to have here today.

Commissioner DEAN. Mr. Chairman, I would like to lay at rest any such claim as that which you have stated was made by this commentator: that that is happening at Savannah River.

Our workweek at Savannah River today, far from what it was in this emergency period, is 45 hours. Our workweek at Paducah is 48. Our highest workweek at any sensitive place in the program that I can think of at the moment is in one facility we have there in the Midwest, which is 54 hours. That is the highest we have got, with all the urgency we have in the program. So, you can never account for any high cost in the Savannah River project by the payment of overtime.

The CHAIRMAN. The question arises, then: You say 45 hours at Savannah River, 48 hours at Paducah, and 54 hours at the sensitive installations in the Midwest. I take it that you are not calling for more hours of work at these places because of the overtime costs.

Commissioner DEAN. That is a consideration. Yes; certainly, because your bill goes up considerably, and you have to measure what you are going to get in terms of an early production date against the dollars it is going to cost you and how important it is. We have not found it necessary.

Senator ANDERSON. But you did say a minute ago that the lump sum contractors were paying as much as $500 per week.

Commissioner DEAN. This is again out at the Nevada test site. I was excepting that.

Senator ANDERSON. I am sorry. I did not mean to say that you had not excepted it. But I say even there, if the lump-sum contractor is paying $500 a week, he has to figure that into his bid; does he not?

Commissioner DEAN. He certainly does, or he will go broke.

Senator ANDERSON. And, therefore, your costs out there were higher, because of the extreme rush of the work.

Commissioner DEAN. That is very true.

Senator ANDERSON. I heard you say this was started in December of 1950 and that the first shot was in February of 1951. Actually, you had started to shoot even in the closing days of January; had you not?

Commissioner DEAN. That is very true.

Senator ANDERSON. And one of the shots took place in the very first days of February.

Commissioner DEAN. We did not get authorization to shoot shots in the continental United States until later; so, it was somewhat on the order of 40 or 50 days.

Representative DURHAM. When was this contract let to begin with, Mr. Dean?

Commissioner DEAN. It was let in June of 1951.

Representative DURHAM. Did that have something to do with delaying the finishing of it? The contract, of course, was rather crowded, and you rushed this thing at the end to try to put it into operation. So you find yourself in this position, paying this man this sum of money.

Senator ANDERSON. McNeil was given his contract in May.

Commissioner DEAN. That is true. I should have said May instead of June.

Senator HICKENLOOPER. Mr. Chairman, I wonder if you have the record here on the Haddock Engineers operation there, showing what other foremen received during this period of time; that is, carpenter foremen, electrician foremen, and other foremen who were on the job?

Commissioner DEAN. Let me inquire, Senator, what period of time you have in mind.

Senator HICKENLOOPER. Let us start with the month of October in particular, because we have the figures on this plumber in October.

Commission DEAN. I think we have those figures.

Mr. COLE. Among the people who were hired directly by Haddock——

Senator HICKENLOOPER. Or working for Haddock, later.

Mr. COLE. I am going to get to that. There was one carpenter foreman in 1 week during October who was paid in excess of $500.

Senator HICKENLOOPER. What week was that? Do you know?

Mr. COLE. It is the week ending October 16. I do not have the exact figures on him.

Senator HICKENLOOPER. Do you have any other weekly figures on him, any figures of his earnings for any other week?

Mr. COLE. Not on him as an individual; no sir. For the months of August, September, and October—and these have been average— these were averaged on a full week's basis; it doesn't mean all of these people were necessarily there all of the 3 months' period, but anyone who worked 4 weeks was included in the average. The foremen averaged $360.40.

Senator HICKENLOOPER. Do you have the top pay of any foreman there? I mean, what is the top, and what is the bottom to make up that average?

Mr. COLE. No, sir, I do not have the top, but I do know that two of these men in one week did make $700 also.

Senator ANDERSON. Apiece?

Mr. COLE. Each. Journeymen, the electricians, averaged over this period $282.20 per week.

Representative DURHAM. Can you give us the hourly wage, straight wage, on a plumber, carpenter, or whatever it is, to see if that is out of line? Of course, this double time and treble time and double-double time and golden time may come into it.

Mr. COLE. There was no golden time, sir.

Representative DURHAM. It has here "double-double-double." I do not know what that is.

Commissioner DEAN. This particular man, for example, Mr. Durham, worked 40 hours at $3.50 an hour.

Representative DURHAM. He worked 12 hours, here. It says 12 hours double-double time, which makes 48 hours that you pay for at $3.50 an hour.

Mr. COLE. He worked 24 hours, sir, instead of 12 hours, and for the entire 24 hours he received double time. It was a Saturday.

Representative DURHAM. Not according to the schedule they have here, if this is correct.

Mr. COLE. This was checked this morning, sir.

Commissioner DEAN. May I give you the facts as we have them now, Mr. Durham? He worked 40 hours at $3.50.

Senator HICKENLOOPER. On what day was that?

Commissioner DEAN. This was through the week, the total for the week. And he worked 83 hours in addition, making a total of 123 hours. And for those 83 hours he received double time, not double-double time, at the rate of $7 per hour.

Senator ANDERSON. That does not check with what we have here. We have here 40 hours of straight time, 43 hours at double time, and 20 hours on double-double time or golden time.

Is that right or wrong? Saturday, for example, he worked 12 hours at straight time.

Mr. COLE. He worked 24 hours on Saturday.

Mr. TYLER. That is the error in this column. The last two figures should be in the double time column at 24 and 16.

Representative ELSTON. Captain, do you have any double-double time?

Mr. TYLER. No, sir.

Representative ELSTON. Have you ever paid any double-double time?

Mr. TYLER. Not that I know of.

Representative ELSTON. That is the first you have heard of double-double time?

Mr. COLE. Yes, sir.

Senator BRICKER. How did it get in this table?

Commissioner DEAN. It is an error.

Senator BRICKER. Who made it?

Commissioner DEAN. This was not our figure.

Senator ANDERSON. That is on the basis of questioning from the newspaper story, but the staff is not certain it is correct. We now have the statement, then, that he worked 24 hours on Saturday and 16 hours on Sunday, for which he got double time.

Commissioner DEAN. That is correct.

The CHAIRMAN. Now, this table I have before me, I am informed by Mr. Heller of the staff, was taken from newspaper sources. And you say this is not an accurate table.

Commissioner DEAN. That is correct. The double-time column should be moved over, the two figures, 12 on Saturday and 8 on Sunday, into the third column, on double time.

Senator ANDERSON. Twenty-four and sixteen?

Commissioner DEAN. That is correct, sir.

Representative DURHAM. The thing I am concerned about is this: What is your schedule on your carpenters? Have you a schedule on your carpenters and plumbers and journeymen and all the rest of them?

Mr. COLE. Yes, sir. The journeyman plumber's regular rate is $3 per hour.

Representative DURHAM. What is it in the city of Washington?

Mr. COLE. That I don't know, sir.

Senator HICKENLOOPER. What does the rate go to for overtime on a weekday?

Mr. COLE. Double time in the case of plumbers?

Senator HICKENLOOPER. For overtime on a weekday?

Mr. COLE. Yes, sir.

Senator HICKENLOOPER. What is the rate for work on Saturday?

Mr. COLE. Double time for all work on Saturday or Sunday.

Senator HICKENLOOPER. All right. If they work 16 hours on Saturday, do they get any more than double time for each hour worked?

Mr. COLE. No, sir. They do get double time for the entire 16 hours.

Senator HICKENLOOPER. If they work on Sunday, what do they get?

Mr. COLE. Double time.

Senator HICKENLOOPER. Nothing but double time, no increase over the double time for work on Sunday?

Mr. COLE. That is correct.

Senator HICKENLOOPER. If they work on a holiday, such as the Fourth of July or Memorial Day or Labor Day, what do they get?

Mr. COLE. Double time.

Senator HICKENLOOPER. Straight double time. And no double-double time of any kind?

Mr. COLE. That is right, sir.

Commissioner DEAN. You are speaking of plumbers, are you not?

Mr. COLE. I am speaking of plumbers.

Senator HICKENLOOPER. I understood you, Captain Tyler, or you, Mr. Cole, to state a moment ago that in this project, or we might enlarge it to the entire atomic energy operation, there is no such thing as double-double time, in other words, quadruple hour pay, based on the normal base?

Mr. COLE. There is none at this project. As far as I know, there is none within the Santa Fe operations office.

Commissioner DEAN. Mr. Bloch advises me that there is no place in the Commission activities anywhere where they pay more than double time, where there are contractors.

Senator HICKENLOOPER. Where you pay, under any circumstances, more than double time for hours worked?

Commissioner DEAN. I am so advised.

Senator HICKENLOOPER. Regardless of whether it is Saturdays, holidays, or any other days?

Commissioner DEAN. That is correct.

Representative DURHAM. I wanted that schedule of all the payments to the laborers out there, so that we would have some comparison as to whether it is out of line with the general Washington schedule.

Senator HICKENLOOPER. I apologize, Mr. Chairman, for breaking in, but as long as he was giving the schedule, I thought he could explain where the other provisions for extra pay come in.

Representative DURHAM. Just so we will have it for the record. We are sure it was exaggerated from the standpoint of pay to the individual. And that alone in the hourly rate compares to the hourly rate throughout the country.

Mr. COLE. These figures, sir, are established by the Department of Labor under the Davis-Bacon Act and are given to the United States for use. That is the journeyman rate.

Representative DURHAM. And that is what the contractor has to abide by.

Mr. COLE. That is the minimum which the Department of Labor permits the contractor to pay and is the maximum which we permit him to pay. In other words, it is both a minimum and a maximum.

The CHAIRMAN. And under the Davis-Bacon Act, the standard or the test is the prevailing wage for that work in the area; is that not so?

Representative DURHAM. That is what I understood.

Mr. COLE. That is correct, sir.

Senator BRICKER. What was this based upon?

Mr. COLE. Sir, this was done by the Department of Labor.

Senator BRICKER. You do not know what base he took, what city he took as a base for his standard?

Mr. COLE. No, sir.

Representative ELSTON. Mr. Chairman, I did not get an answer to my question as to whether bonuses are paid.

Commissioner DEAN. No bonuses.

Representative ELSTON. On any site?

Commissioner DEAN. On any site.

The CHAIRMAN. Mr. Dean, before we get into the schedule on this particular job, there are certain general questions that I would like to ask and get clear in my own mind. Now, as I understand it, and from your testimony so far, this situation does not prevail throughout the Atomic Energy Commission's contracts or their work.

Commissioner DEAN. It certainly does not. This is a very unusual situation, and one that developed just prior to test. And the thing that strikes me, as I look back on these figures and realize the urgency that you faced just prior to shooting, and the necessity of completing these facilities in time for the shot, and knowing what this confusion was, having been there myself, I can understand how you would get into a situation of this kind, although I do not like it.

The CHAIRMAN. Just this further question. You say they are working 45 hours down at Savannah River and 48 hours at Paducah and 54 hours at one sensitive plant.

Commissioner DEAN. That is correct.

The CHAIRMAN. Of course, we could get those projects completed a good deal faster if you would work these men double time. Is that not right? And pay for it?

Commissioner DEAN. Depending on the situation. I would rather that our construction people would talk to what the situation would be in a given area, where you are building, whether you get more out of it by putting them on double time, working them longer, or not. We did at Savannah River start with a 40-hour week and jumped to 45.

The CHAIRMAN. And therefore incurred overtime to the extent of those 5 hours?

Commissioner DEAN. Those 5 hours. That is correct.

The CHAIRMAN. And that has pushed up the cost, and if you push it up to 54, you are going to increase it proportionately, are you not?

Commissioner DEAN. If we should, we certainly would.

The CHAIRMAN. And of course, it goes without saying, that the same is true as to the other two projects, Paducah and the one in the Middle West.

I just want to make it clear, because I think it is important that we should know that this is not a general condition. But you say it was confined to this instance.

Commissioner DEAN. It is certainly not a general condition; no, sir.

The CHAIRMAN. What is a plumber making at Savannah River? Do you know?

Commissioner DEAN. We have the facts here.

Mr. BLOCH. $2.60 an hour.

Commissioner DEAN. A journeyman plumber, $2.60 an hour.

Senator ANDERSON. What is the subsistence rate?

Mr. COLE. At Nevada test site, in all the cases except the laborers, and I believe two or three crafts, the subsistence is $5 per day. In the case of six crafts it is $3.50.

Commissioner DEAN. Most of our men at the test site in Nevada have to be recruited in the labor market in California. We have to bring them over there and then transport them into the area.

Representative ELSTON. Do you have to pay their transportation?

Commissioner DEAN. We have to pay their transportation.

The CHAIRMAN. What do you call that? Travel and isolation pay? Is that not the phrase they use, "isolation pay"?

Mr. COLE. Yes; this is termed "isolation pay."

Representative ELSTON. How much transportation do you allow them?

Mr. COLE. The person has his fare to Las Vegas.

Representative ELSTON. Railroad fare?

Mr. COLE. Yes, sir; first-class railroad fare.

Senator MILLIKIN. Mr. Chairman, I would like to ask, What control is exercised over the wages paid on a cost-plus contract?

Mr. TYLER. I didn't get the question, Senator.

Senator MILLIKIN. As I understand it, these plumbers are paid under a cost-plus contract. Correct?

Mr. TYLER. Yes, sir.

Senator MILLIKIN. What control do you exercise over the cost factor?

Mr. TYLER. The wage scales under a cost-plus-fixed- fee contract are fixed by our office and are agreeable to our office as standard. In this particular case, the wage scales were, as Mr. Cole said, set up by the Department of Labor under the Davis-Bacon Act. The fringe benefits were agreed upon between the associated general contractors and the building trades unions of Nevada, in negotiation. The negotiation, as a result of that contract, was turned over to us for approval and acceptance as the standards under which the contractors were to work.

Senator MILLIKIN. Have you approved the double-pay arrangement here?

Mr. TYLER. Yes, sir.

Senator MILLIKIN. What was the necessity for the double pay in this particular case?

Mr. TYLER. The basis of double pay: It is based on the basic contract between the union and the contractors, which is double time.

Senator MILLIKIN. But what was the necessity for paying the double pay?

Mr. TYLER. Under the agreement, any time over 40 hours is double time.

Senator MILLIKIN. No, but I mean was there a necessity that this man, this particular man, should do this particular double-time work?

Mr. TYLER. Yes, sir. And I would like to enlarge on that.

Senator MILLIKIN. How did that come about?

Mr. TYLER. I would like to enlarge on that, if I may, sir. The pressure of this particular week: It was the last week before firing. The first firing, if you remember, was on the 19th. This particular week was the last week. He was working his own journeymen one and two shifts out there, but this man was not a plumber. He was a superintendent of plumbers in charge of production. And in order to keep the project moving, it was necessary that he be there with successive people and keep the job in sequence. It would not have saved us a dollar, in fact it would have cost us more money, sir, if we had hired another superintendent to work half of the time, because we not only would have had to pay the same double time for the other superintendent, because under the plumbers agreement out there, any time after 5 o'clock is double time even if it is the only time a man works.

Senator MILLIKIN. What supervision do you exercise to avoid this last-minute pile-up which you say necessitates double time?

Mr. TYLER. The supervision is started at the very origin of the thing, sir, and except for the imposition by necessity of added tests, for which the results were considered by the Commission vitally important, our orderly schedule would have been carried out and we would have finished with very little double time.

Senator MILLIKIN. Did this particular contractor finish under the progression that you had established for him? I am talking now about the cost-plus contractor.

Mr. TYLER. No, sir, he did not, but he got the building into operation for us. That is all we asked him to do.

Senator MILLIKIN. Then I have not made myself clear. I should think it would be a normal thing to look forward to the completion by a certain time of cost-plus contracts, among other reasons to avoid this last-minute pile-up of double time.

Mr. TYLER. Yes, sir.

Senator MILLIKIN. Had this contractor progressed as you laid down in your contract, or however you do it?

Mr. TYLER. I would like to bring you up to date on that, sir. This was a lump-sum contract, up until the 28th of September.

Then we gave this contractor, the cost-plus contractor, from the 28th of September until the 15th of October to put the building in operating condition. He could not finish it. But he did get it in such condition that we could then use the building during this series of tests.

Senator MILLIKIN. Up to the time you put him on cost plus, had he progressed the way you wanted him to progress?

Mr. TYLER. From that time until the first test, he did, yes, sir. He got the building into shape. We did not expect him to finish the contract.

The CHAIRMAN. But you understand, Senator, there are two different contractors.

Senator MILLIKIN. I understand. I am coming to that.

Mr. TYLER. It took this pressure to get the building ready.

Senator MILLIKIN. I am talking now only about the cost-plus man. I wonder if generally you have a rate of progression, so that you can avoid last-minute pile-ups of double time.

Mr. TYLER. In this case we didn't The contractor, when he took on this extra load on the 28th of September, had had nothing to do with the previous scale of progression; he had to take it in the condition in which it then was and try to get it operable for us by the 15th of October.

Senator MILLIKIN. That was his only instruction as far as progression was concerned?

Mr. TYLER. That was his instruction from us.

Senator MILLIKIN. Now, have you investigated to find out whether the status of his organization was such that he had to pay this double time?

Mr. TYLER. Yes, sir, we have. And we have found that he was doing correctly.

Senator MILLIKIN. You say he had no alternative?

Mr. TYLER. No alternative, and still accomplish the results we required of him.

Senator MILLIKIN. Let us get over now to this other contractor, who was on a straight lump-sum basis. He was on that kind of a basis?

Mr. TYLER. Yes, sir; he was on that kind of a basis.

Senator MILLIKIN. I see under our own staff notes here that several times the cost-plus fellow raided the working force of the fellow who did not have that kind of a contract, who was on a lump-sum basis. Correct?

Mr. TYLER. Your effect is correct, sir, but I think the verb is bad.

Senator MILLIKIN. Well, pick your own word.

Mr. TYLER. The fact remains that there were two jobs going on in the same area.

Senator MILLIKIN. Yes.

Mr. TYLER. One man was unwilling to pay beyond, I think, at that time, a 54-hour week. The other man had worked. The laborer goes where he pleases.

Senator MILLIKIN. Of course.

Mr. TYLER. And he went where he could get the most work. That is quite understandable.

Senator MILLIKIN. And the fellow that hangs up the biggest wage opportunity gets the fellow's work.

Mr. TYLER. Now, the lump-sum contractor, I would like to call your attention to again, sir. The lump-sum contractor had a 90-day contract which he bid on for 90-day completion. This competition did not come in in the initial part of his contract. And in order to partially compensate for this, we gave him a 35-day extension, which was well over a third of the time on which he bid. And we only canceled him out when he had not even made satisfactory progress at that time to

indicate that we would be able to use the building; not complete the contract, but that we would be able to use the building.

Senator MILLIKIN. But despite the fact that the other fellow was in a position to take away a lot of his workers, the other fellow was unable to get the job completed in time for your tests, except by these extraordinary devices.

Mr. TYLER. It would appear that he was not denuded of workers. He had workers.

Senator MILLIKIN. Of course, if he was denuded of workers, he would not have had any, so obviously we are not talking about denuding of workers.

Mr. TYLER. He did not lose all of his people. We had lump-sum contractors working there on similar contracts at the same time who finished their contracts. They went out and got additional people and paid the additional wage to keep them working.

Senator MILLIKIN. Did you anticipate when you made this cost-plus contract that you would have this last minute pile-up?

Mr. TYLER. Yes, sir. We knew we were going to have it. That is the only reason we went to a cost-plus contract. I normally in my operations do not use cost-plus contracts.

Ninety percent or better than ninety percent of all the work of SF operations has been lump sum.

Senator MILLIKIN. You can have a cost-plus contract and at the same time not have an excessive amount of double-time pay.

Mr. TYLER. That's right, sir.

Senator MILLIKIN. So I am asking you, since you had a cost-plus contract, whether you were anticipating a lot of double-time pay.

Mr. TYLER. I was anticipating an awful lot more work than there was time to do, and it naturally involved double-time pay.

Senator MILLIKIN. What was the period of operations under the cost-plus contract?

Mr. TYLER. The Haddock contract was let in June, the latter part of June.

Senator MILLIKIN. When did they get started with the work?

Mr. TYLER. Probably right then.

Senator MILLIKIN. They were just working along. They were already there.

Mr. TYLER. Well, they got started the latter part of June on their own cost-plus contract.

Senator MILLIKIN. I am back now on the fellow who got the cost-plus contract. When did he start under the cost-plus contract?

Mr. TYLER. Well, let me bring you up to date on this, too, sir. There was a contractor there doing a cost-plus-fixed-fee job up in another area, for another purpose. That was the man who was supposed to have withdrawn the labor from the lump-sum man. Then when the time came when we had to close this lump-sum contract up in order to get use of the building by the 15th of October, we turned this job over to the CPFF contractor who was there, because he had people on the job, he had supervision of the job, and he could move in and supervise adequately to get this job done within the requirement.

Senator MILLIKIN. O. K. What was the period of work by the man paid under this contract when he started on cost plus?

Mr. TYLER. I don't know about the bid man, but the CPFF contractor started on the 28th of September.

Senator MILLIKIN. And when did he finish, under cost plus?

Mr. TYLER. We started operations in the building on the 15th of October, sir, at which time, except for an hour or so occasionally when we had a slack period, no workers were allowed in. It was a closed building.

Senator MILLIKIN. Have you graphed out your work during that period of a month or so?

Mr. TYLER. We have not, sir. We have a lot of figures, but I just came in last night.

Senator MILLIKIN. Could he have speeded that thing at the beginning of that month, without losing all this time?

Mr. TYLER. I don't think he could under the time circumstances. You see, there were really only 17 days. He took over the 28th of September, and we had to have occupancy of the building on the 15th of October.

Senator MILLIKIN. Would you say there was as much time at the beginning of that period as there was at the end?

Mr. TYLER. No, but it was fairly close. There was more at the end. Because the electrical work came up to climaxes of technical decisions which could not have been made sooner. As a result, the double-time particularly on electricians was necessarily high at the end.

Senator MILLIKIN. Was this man the only man available to do double-time work?

Mr. TYLER. He was the only plumbing superintendent on the job, sir.

Senator MILLIKIN. The only one?

Mr. TYLER. Yes, sir.

Senator MILLIKIN. And would that apply to other craftsmen?

Mr. TYLER. Yes, sir, I think in the same proportion it does.

Senator MILLIKIN. Who else got similar double-time during that last rush period?

Mr. TYLER. There were carpenters and electricians, principally electricians.

Senator MILLIKIN. Let us have that for the record.

(The information referred to is as follows:)

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., February 15, 1952.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: At the joint committee meeting of January 30 regarding wage payments at the Nevada test site, the committee requested that we supply for the record certain additional information. Attached is that information. The wage payments set forth were obtained from the payroll records of the contractors.

Our review of these payrolls indicates that a payment for wages of $859.46 was made for the week ending October 14, 1951, to an employee of the Newberry Electric Corp. of Arizona, subcontractor to Haddock-Engineers, Ltd. & Associates. This information was in transit to Washington and not available to us at the time of the hearings.

The employee was a general foreman, who was charged with responsibility for supervising all electrical work in construction at the detonation area and at the

control-point area. While his work involved extremely sustained hours of work, the forces under his direction met all schedules and work requests placed upon them at both areas.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

*Analysis of total wage and salary costs reimbursed under Haddock contract (for period June 14, 1951, through Jan. 17, 1952)*

| | Pay for total actual hours of work at straight-time rates [1] | Pay for bonus hours | Number of persons [2] |
|---|---|---|---|
| Week ending— | | | |
| June 26, 1951 | $201.61 | $1.57 | 6 |
| July 3, 1951 | 1,646.28 | 119.49 | 35 |
| July 10, 1951 | 5,845.88 | 1,018.95 | 66 |
| July 17, 1951 | 10,159.94 | 1,571.31 | 127 |
| July 24, 1951 | 17,862.11 | 3,149.90 | 195 |
| July 31, 1951 | 28,046.58 | 5,421.01 | 290 |
| Aug. 7, 1951 | 48,694.37 | 14,147.16 | 483 |
| Aug. 14, 1951 | 75,520.54 | 24,390.07 | 674 |
| Aug. 21, 1951 | 94,438.30 | 29,761.21 | 818 |
| Aug. 28, 1951 | 97,478.85 | 26,135.78 | 917 |
| Sept. 2, 1951 | 85,425.63 | 29,538.82 | 915 |
| Sept. 9, 1951 | 111,001.43 | 41,001.28 | 1,037 |
| Sept. 16, 1951 | 149,012.21 | 55,502.83 | 1,123 |
| Sept. 23, 1951 | 160,093.69 | 60,798.17 | 1,170 |
| Sept. 30, 1951 | 162,635.52 | 62,371.07 | 1,132 |
| Oct. 7, 1951 | 193,218.56 | 76,096.49 | 1,282 |
| Oct. 14, 1951 | 198,311.97 | 78,335.00 | 1,429 |
| Oct. 21, 1951 | 168,808.94 | 54,776.19 | 1,436 |
| Oct. 28, 1951 | 179,237.90 | 61,153.82 | 1,466 |
| Nov. 4, 1951 | 201,409.15 | 71,022.12 | 1,492 |
| Nov. 11, 1951 | 186,615.28 | 65,024.67 | 1,439 |
| Nov. 18, 1951 | 125,876.99 | 45,548.38 | 1,202 |
| Nov. 25, 1951 | 94,443.49 | 31,190.75 | 913 |
| Dec. 2, 1951 | 81,667.51 | 18,525.76 | 743 |
| Dec. 9, 1951 | 65,450.07 | 13,223.03 | 684 |
| Dec. 16, 1951 | 64,927.16 | 12,489.68 | 627 |
| Dec. 23, 1951 | 62,621.47 | 12,163.52 | 619 |
| Dec. 30, 1951 | 47,402.63 | 11,626.26 | 588 |
| Jan. 6, 1952 | 35,949.15 | 14,782.13 | 642 |
| Jan. 13, 1952 | 78,621.98 | 18,568.40 | 716 |
| Jan. 20, 1952 | 61,862.92 | 13,360.40 | 549 |
| Jan. 27, 1952 | 59,479.63 | 10,378.35 | 570 |
| Total | 2,953,967.74 | 963,202.57 | |

[1] This includes overtime hours at straight-time rates.
[2] Each of these employees did not necessarily work the entire week.

*Summary of wage rates for principal crafts at Nevada test site*

| CRAFT | *Hourly rate* |
|---|---|
| Plumbers: | |
| Superintendent | $3.50 |
| General foreman | 3.25 |
| Plumber journeymen | 3.00 |
| Helper | 1.65 |
| Carpenters: | |
| General foreman | 3.075 |
| Foremen | 2.70–2.825 |
| Sawmen | 2.575 |
| Carpenters journeymen | 2.45 |
| Laborers: | |
| General foreman | 2.275–2.38 |
| Foremen | 1.925–2.205 |
| Laborers | 1.75 |

| CRAFT—continued | |
|---|---|
| Laborers—Continued | *Hourly rate* |
| Cement handlers | $1.95 |
| Drillers and jack hammerers | 2.03 |
| Powdermen | 2.10 |
| Ironworkers: | |
| Superintendent | 3.25 |
| General foreman | 3.00 |
| Foremen | 2.75 |
| Ironworkers | 2.50 |
| Apprentice | 2.00 |
| Electricians: | |
| Foremen | 3.195 |
| Journeymen and apprentices | 1.617–2.945 |

***Analysis of craft wage costs reimbursed under the Haddock contract (includes all subcontractors), for period Aug. 1 through Oct. 31***

| Craft | Average number of hours worked per week | Average total weekly wages per employee [1] | Craft | Average number of hours worked per week | Average total weekly wages per employee [1] |
|---|---|---|---|---|---|
| Electricians: | | | Laborers: | | |
| Foremen | 78.9 | $360.40 | Foremen | 72.92 | $206.08 |
| Journeymen | 67.5 | 282.20 | Laborers | 58.11 | 141.23 |
| Apprentices | 67.4 | 213.69 | Plumbers: [2] | | |
| Carpenters: | | | Foremen | 105.2 | 598.08 |
| Foremen | 68.05 | 271.41 | Journeymen | 82.1 | 402.13 |
| Journeymen | 59.87 | 208.83 | | | |
| Apprentices | 59.59 | 148.70 | | | |

[1] Does not include subsistence or travel allowances.
[2] These figures are for peak work periods (weeks ending Oct. 2, Oct. 9, and Oct. 16) and reflect higher values than if based on entire period. These employees were plumbers working for A. G. Sylvester under subcontract to Haddock—previously A. G. Sylvester was a subcontractor of the McNeil Construction Co.

***Summary of direct employees of Haddock Engineers, Ltd., and associates who received in excess of $500 per week at Nevada test site***

| | Number of employees | Average wage received | Highest wage received during period | | Number of employees | Average wage received | Highest wage received during period |
|---|---|---|---|---|---|---|---|
| Week ending— | | | | Week ending— | | | |
| Sept. 23, 1951 | 2 | $528.00 | $553.50 | Nov. 4, 1951 | 1 | 539.00 | 539.00 |
| Sept. 30, 1951 | 1 | 536.00 | 536.00 | Nov. 11, 1951 | 1 | 525.00 | 525.00 |
| Oct. 7, 1951 | 5 | 567.00 | 617.50 | Nov. 18, 1951 | 2 | 535.00 | 539.00 |
| Oct. 14, 1951 | 3 | 550.00 | 564.94 | Nov. 25, 1951 | 2 | 528.50 | 532.00 |
| Oct. 21, 1951 | 1 | 523.80 | 523.80 | | | | |

The above figures do not include subsistence or travel time payments. Maximum subsistence payment is $35 per week.
For no periods other than those shown above were any Haddock employees paid more than $500 per week.

***Summary of employees of A. G. Sylvester (plumbing subcontractor to Haddock Engineers, Ltd.) who received in excess of $500 per week while employed at Nevada test site [1]***

| | Week ending— | | |
|---|---|---|---|
| | October 2, 1951 | October 9, 1951 | October 16, 1951 |
| Number of employees | 2 | 9 | 6 |
| Superintendents | 1 | 1 | 1 |
| Foremen | 1 | 1 | 1 |
| Plumbers | 0 | 7 | 4 |
| Average wage received | $371 | $571 | $583 |
| Highest wage received during period | $385 | $637 | $721 |

[1] Haddock took over A. G. Sylvester's plumbing contract from McNeil Construction Co. on Sept. 28, 1951.

Above figures do not include $35 per week allowance for subsistence.
For no other periods than those shown above were any Sylvester employees paid more than $500 per week.

*Summary of employees of Newbery Electric Corp. (electrical subcontractors to Haddock Engineers, Ltd.) who received in excess of $500 per week for work at Nevada test site during the period Sept. 2½, 1951, to Nov. 11, 1951*

| | Number of employees | Average wage received | Average standard-time hours worked | Average overtime hours worked | Highest wage received during period |
|---|---|---|---|---|---|
| Week ending— | | | | | |
| Sept. 30, 1951 | 0 | 0 | 0 | 0 | 0 |
| Oct. 7, 1951 | 7 | $556.46 | 31 | 74.75 | $936.53 |
| Oct. 14, 1951 [1] | 73 | 574.97 | 39 | 81.0 | 859.46 |
| Oct. 21, 1951 | 5 | 551.78 | 37 | 69.0 | 578.30 |
| Oct. 28, 1951 | 6 | 559.67 | 40 | 74.0 | 656.70 |
| Nov. 4, 1951 | 17 | 607.69 | 39 | 82.0 | 741.13 |
| Nov. 11, 1951 [2] | 33 | 536.99 | 37 | 77.0 | 699.71 |

[1] Period of peak electrical work on detonation area and control-point construction.
[2] Peak of electrical work in preparation for operation JANGLE.

Above figures do not include a $35 per week allowance for subsistence.

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., February 19, 1952.*

MR. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington 25, D. C.*

DEAR MR. BORDEN: Attached is additional information on subsistence and travel allowances for principal crafts at the Nevada test site which was requested February 18 by telephone by Mr. William Bergin of the committee staff. This information supplements the tabulations transmitted to Senator McMahon by Chairman Dean's letter of February 15, 1952.

Sincerely yours,

GEORGE F. SCHLATTER,
*Colonel, USAF, Deputy Director of Military Application.*

Enclosure.

*Subsistence allowances for principal crafts at the Nevada test site*

| *Craft* | *Allowance per day* |
|---|---|
| Plumbers | $5.00 |
| Electricians | 5.00 |
| Ironworkers | 5.00 |
| Carpenters | 3.50 |
| Laborers | 3.50 |

All of these allowances were in accordance with the agreements between construction unions and the associated contractors, in effect in the Las Vegas area.

*Travel allowances for principal crafts at the Nevada test site*

Most workers at the test site were housed in the facilities available at the construction camp which is located approximately 40 miles from the firing area. Plumbers, electricians, and ironworkers engaged on construction at the technical test areas were paid their established craft wage for the 2 hours required to travel from and to the construction camp. As housing was available at the camp, workers of these crafts residing in Las Vegas or elsewhere were allowed travel pay only from and to the camp. No travel allowances were made to carpenters and laborers.

NOTE.—Regular and overtime wage tabulations submitted to the Joint Committee by Chairman Dean's letter of February 15, 1952, include payment of the travel allowances described above.

Mr. TYLER. I would like to apologize for not having better figures, but we got this late yesterday afternoon and spent most of the night in the air, so we got most of this by telephone.

Mr. COLE. The electricians, the average we have, sir, is for a 3-month period, August, September, and October.

Senator MILLIKIN. That will not reach what I am talking about. Do you not remember out of your own memory whether there were any other superintendents, electrical superintendents or plumbing or masonry or whatever they might be, who were making comparable double time, during the same period?

Mr. COLE. Yes, sir, there were, but I do not have the numbers of hours, or the names or amounts.

Senator ANDERSON. But did you not testify there were two electricians who drew about $700 a week?

Mr. COLE. The last week, when this occurred; yes, sir.

Senator MILLIKIN. How else was the job divided?

We have been talking about plumbers and electricians. What other type of superintendent was involved?

Mr. COLE. Carpenters and laborers were primarily the ones.

Senator MILLIKIN. Carpenters and who else?

Mr. COLE. And laborers.

Senator MILLIKIN. Did you have any masonry men?

Mr. COLE. Very few, sir.

Mr. TYLER. Very few at that stage of the game. Our masonry work was practically completed.

Senator MILLIKIN. And all of those you think got comparable double time during the last hurry-up rush period?

Mr. COLE. The more nearly comparable was the group of electricians. The carpenters did not nearly approach the amount of time.

Senator MILLIKIN. How about the men, the workers? Did they start doubling up?

Mr. COLE. Yes, sir. Their workweek was also increased.

Senator MILLIKIN. Was that during the whole period of the cost-plus contract, or did it also progress and get larger and larger as they reached the finish?

Mr. COLE. These figures we do not have, sir. I have asked for them, and we will put them in the record. But I do know from my knowledge that there was a build-up during this week in the middle part of October, which was the climax.

Senator MILLIKIN. In your judgment, the thing could not have been spaced so that there would not have been as much double-time work and as much double-time pay?

Mr. COLE. There could not have been, and still reach the established dates for the test. The information was not available on some of the latter things, sir, until it was almost time to fire.

Senator MILLIKIN. Mr. Chairman, I would like to have for the benefit of the record the double time of the workers on this project during that period, broken into categories.

Did I make my question clear?

Commissioner DEAN. Yes, sir.

(The information referred to appears on p. 15.)

The CHAIRMAN. Captain, what was the total cost to the Commission of McNeil falling down on this job?

Mr. TYLER. This has not been determined yet, sir, until his appeal has been resolved in the Appeal Board. When the appeal has been resolved, we will know whether he, his bondsman, or the Commission, are going to have to take the responsibility.

The CHAIRMAN. Let us assume, just for the purposes of reaching some estimate of what is involved.

Mr. TYLER. I would have to use round-number figures, sir, but I would assume it probably cost us in the vicinity of 75 to 100 thousand dollars over the original cost of the building on a lump-sum contract. I am picking these out of my own knowledge and understanding of the problem, rather than any figures which I have had a chance to examine.

The CHAIRMAN. Has McNeil been a contractor with the Commission before?

Mr. TYLER. No, sir, this is his first contract.

The CHAIRMAN. Where is he from?

Mr. TYLER. Los Angeles area.

The CHAIRMAN. And this is the first contract he has had?

Mr. TYLER. This is the first contract he has had with us (SFOO).

The CHAIRMAN. Were they a company of experience and any proven history?

Mr. TYLER. This particular branch of the McNeil Co. does not have as much experience as others. It is quite a complicated construction family, going back over a couple of generations. This particular company, under the youngest McNeil, is a relatively inexperienced branch compared to the other McNeil construction companies.

The CHAIRMAN. The total amount of their contract for this job was $617,000, which was subsequently increased to $660,000?

Mr. TYLER. Yes, sir. That was an increase in scope.

The CHAIRMAN. An increase in scope?

Mr. TYLER. Yes, sir. We added a job to it.

The CHAIRMAN. All right. We will take the figure of $660,000. How much were they lower than the next bidder?

Mr. COLE. It is about a hundred thousand dollars, sir. I have the figures here.

The CHAIRMAN. I would like to have those figures.

Representative ELSTON. May I ask: Were they required to give a performance bond?

Mr. TYLER. Yes, sir.

Representative ELSTON. Is the performance bond sufficient to take care of any loss?

Mr. TYLER. It will take care of 50 percent of the value of the contract, which is more than any conceivable loss as we can see it now.

Representative ELSTON. One other question I would like to ask, Mr. Chairman.

I notice you are jumping from straight time to double time. Was there no time and a half paid?

Mr. TYLER. Not under plumbers' contracts, no. All of those contracts from the Los Angeles area are straight time and double time.

Representative ELSTON. Is that peculiar only to that area?

Mr. COLE. It varies, sir. It is generally true of electricians and plumbers, I believe.

Representative ELSTON. Is it true in the Savannah River project?

Mr. BLOCH. The Savannah River plumbers get time and a half except Sundays and holidays, when they get double time. The pattern varies from locality to locality. It varies between crafts.

Senator ANDERSON. Captain, there has been some suggestion here about pirating employees away from McNeil.

The CHAIRMAN. Before we get into that, Senator, I would like to get an answer to that question about the bids here, if you do not mind. I would like to get that in the record.

Mr. COLE. McNeil Construction Co. bid $617,913. The next bid was J. A. McNeil Co., who is an uncle of the McNeil Construction Co., $723,320. And there are three other bidders.

Senator ANDERSON. What are the rest of the bids?

Mr. COLE. R. E. McKee bid $747,583. Utah-Leavell Co. bid $802,476. Haddock Engineers bid $896,347.

Senator MILLIKIN. What was the Commission's estimate of what the job should be done for?

Mr. COLE. The engineers' estimate—and this stands for the Commission, I suppose—is $459,555.

Senator MILLIKIN. Well, you missed it badly, and so did several others.

The CHAIRMAN. I want to follow this through. Was that the last bid, $896,000?

Mr. COLE. Yes, sir, that is the high bid.

The CHAIRMAN. Now, when the award was made for $617,000, who was the deciding vote on that? Who was actually the fellow who decided to give it to the $617,000 man?

Mr. TYLER. We have a contract board which reviews all our bids and makes a recommendation to me personally. I make the award on their recommendation.

The CHAIRMAN. And who is on that board?

Mr. TYLER. The board is made up of members of my staff. It is chairmanned at the moment by my supply and purchasing officer, and is composed of members of the Fiscal Division, the Legal Division, the Personnel Division, and the Engineering and Construction Division.

The CHAIRMAN. Do you have those names available?

Mr. TYLER. Mr. Cole can give them to you, I trust. He used to be chairman of the board at one time. We try to keep as full a membership as we can.

Mr. COLE. The present membership is: Mr. George Udel, chairman——

Mr. TYLER. He is my purchasing officer.

Mr. COLE. He heads the Supply and Procurement Division. The members are Mr. Frank Peal, who heads the Finance Division; Mr. Judson Ford, who heads the Personnel and Organization Division; and Mr. Chester Brinck, who heads the Legal Division.

Senator MILLIKIN. Do you not have any construction men on there?

Mr. COLE. In this type contract, as a representative of the construction group, I would appear before this group to present a recommendation on this award and to try to answer any questions that were raised.

Mr. TYLER. Our board was originally chairmaned by Mr. Cole, as an engineering and construction officer, but for sound reasons, I believe, we removed the Engineering and Construction from any contract which involved engineering and construction and made them available to the board for consultation.

The CHAIRMAN. Now, was this the Board that awarded this contract?

Mr. COLE. The Board recommended it to Mr. Tyler. He actually makes them.

The CHAIRMAN. Was there an investigation made of the qualifications of this outfit, before the award was made?

Mr. TYLER. Yes, sir; there was. And, further, the outfit was required to post a performance bond.

The CHAIRMAN. In the sum of how much? Half of it?

Mr. TYLER. Up to half of the value of the contract; yes.

The CHAIRMAN. I see. And now it is over that bond that this litigation comes?

Mr. TYLER. It will come, over that bond, when and as a decision is made as to whether we were justified in not extending his time.

The CHAIRMAN. And his defense is that, "I was prevented from fulfilling my contract by your bringing in cost-plus-fixed-fee people who took away my labor"?

Mr. TYLER. That is his contention, I believe, and that is what is being heard.

The CHAIRMAN. Now, let us assume that he prevails. Let us make that hypothesis. What will the cost, final cost, of this building be, approximately? I mean the cost of the completion of the contract which McNeil undertook for $617,000.

Mr. TYLER. I don't think we can answer that with any accuracy at all at the moment, because due to the test intervention we stopped the contractor when the test started, and he had to wait until the tests were over to come back. As a result, that contract has just about been completed now.

The CHAIRMAN. Has he been working double time since then?

Mr. TYLER. No; he has been working 40 hours a week to the present time.

The CHAIRMAN. And will the cost of this thing, in your estimation, reach $896,000, which was the high bid?

Mr. TYLER. No, sir; I don't think it will. As I said, I am speaking only from my experience and my knowledge of the work that is going on. It will probably run from 75 to 100 thousand dollars over.

The CHAIRMAN. In other words, about $700,000?

Mr. TYLER. Between there and $725,000, I would say. As I say, I am making my own estimates.

Senator MILLIKIN. That is still over 100 percent of what they thought was a fair figure for it.

The CHAIRMAN. Yes; but, as you point out, the contractors, some of them, guessed $896,000. And the fellow who guessed $896,000 is the fellow that they picked to complete the job. Evidently he was the high bidder.

Mr. TYLER. He was on the job, and we could not afford, in time, first, to go out and find somebody else in the California area and bring his people in to complete this. He took most of the people right out of the job, and used his own supervision. Furthermore, we would have had to provide, if we brought in other men, that we would go to the added expense of transportation of workers and added housing in the camp and added subsistence. So, we utilized him as an economy measure both for dollars and time.

Senator HICKENLOOPER. May I clear this up? The statement that you made of 75 to 100 thousand dollars more: Now, to snub that right down, do I understand, or do we understand, that you are giving an estimate that the completion of the McNeil contract under ordinary conditions as anticipated at the outset would still have cost from 75 to 100 thousand dollars more than he bid?

Mr. TYLER. No, sir.

Senator HICKENLOOPER. I wanted to get that cleared up, as to whether the 75 or 100 thousand dollar excess——

Mr. TYLER. Let me be sure we understand one another on this, sir. It would not have cost the Government a dollar over $617,000.

Senator HICKENLOOPER. Let me get this clear. McNeil bid $617,000. Now, I understand that, under the circumstances as they transpired, the cost to complete that contract will be somewhere from 75 to 100 thousand dollars, as I understand the estimate is more than the $617,000.

Mr. TYLER. Yes, sir.

Senator HICKENLOOPER. Do I understand you to say that in your judgment had the McNeil contract gone along without, let us say, this labor dispute, of taking laborers away from him and all that sort of stuff, and had it gone along in a normal way, it would have cost 75 to 100 thousand dollars more than McNeil bid?

Mr. TYLER. No, sir. I think if this had gone along in a normal way, with sound supervision and a willingness to employ personnel when there were shortages, he could have accomplished this contract within his bid price.

Senator BRICKER. But not within the time?

Mr. TYLER. He could not do it within the time, even though we were giving him an extension of time, and his attention was called twice during this period to the fact that he was not going to be able to make the date. He just could not do it that way.

As an example, I think this will help clarify your question, sir, or my answer to it, perhaps. If, for example, we had, which we could not under the contracting laws of the United States, turned this thing over to Mr. McNeil as a cost-plus contract from that point on, it would have cost him the $75,000, probably over, because we required a change in the pace to get the thing into operation, and then stopping work and coming back and finishing it up. That is a more expensive way of doing it.

Senator MILLIKIN. Why did you not give McNeil a cost-plus contract?

Mr. TYLER. We could not modify this contract in favor of the contractor who was in default. We had an obligation to the Government under the contracting laws which required us to carry this out. And we have no option. We are not allowed under the law to go back and give him a more favorable contract to complete his own work.

Senator MILLIKIN. You are able to give someone else one more favorable?

Mr. TYLER. Yes.

Senator MILLIKIN. But that is the state of the law. You cannot help that.

Mr. TYLER. That is the way the law reads. We cannot modify the law in favor of a defaulting contractor.

The CHAIRMAN. Senator Anderson has a question.

Senator ANDERSON. There has been talk here about taking away labor from the lump-sum contractor to the cost-plus contractor. There were other lump-sum contractors at Las Vegas at the same time?

Mr. TYLER. Yes. sir.

Senator ANDERSON. Did they lose their men, or did they finish their job?

Mr. TYLER. They got other men and finished their job.

Senator ANDERSON. What were they doing?

Mr. TYLER. The major one in this case, the most outstanding, was the one in charge of building the power plant, getting it into operation.

Senator ANDERSON. Did he finish the job?

Mr. TYLER. He finished it on time.

Senator ANDERSON. Within his bid?

Mr. TYLER. As far as I know, within his bid.

Representative PRICE. He finished within, as far as you were concerned?

Mr. TYLER. Yes, sir.

Senator ANDERSON. There were other lump-sum contractors besides McNeil?

Mr. TYLER. Yes, sir.

Senator ANDERSON. And those lump-sum contractors got their work out?

Mr. TYLER. Yes, sir. I want to be sure I am fair to McNeil on this case. We would not have pressed McNeil on his time if he could have put the building in operating condition within the necessary time, whether he could finish his contract by that time or not.

Senator ANDERSON. It had to be usable for you at the time of the test?

Mr. TYLER. Yes, sir.

Senator ANDERSON. And the other people had their buildings usable at the time of the test?

Mr. TYLER. The power plant had to be in use. Everything depended on that. It was in a usable condition and acceptable for use.

Senator ANDERSON. And they lost men to Haddock one day, and they stole somebdy back from someone else the next, as usually happens in labor camps?

Mr. COLE. They also hired some of McNeil's men.

Representative ELSTON. Mr. Tyler, how do you account for great a discrepancy between the engineers' estimates and the bids?

Mr. TYLER. Well, I must be frank. The engineer who is on this job is a very competent engineer from an engineering point of view, but he has no experience in this area and on this type of a project.

Representative ELSTON. You employed him for this specific purpose?

Mr. TYLER. We employed him for this specific work.

Representative ELSTON. Did the engineer get a fee for this work?

Mr. TYLER. Yes; he got a fee.

Representative ELSTON. How much fee did you pay these engineers whose estimate was several hundred thousand dollars less than the cost, here?

Mr. TYLER. I don't know whether I can give you that answer offhand, because we had a great many other projects going on at the same time. This was only one of all the projects he engineered at that site. This will happen to the best of them.

Senator ANDERSON. Starting with the Bear Mountain Bridge in New York, which broke a couple of the biggest contractors in the country.

Representative ELSTON. One other question. You mentioned awhile ago that these workmen received not only their regular time, plus

double time, plus transportation, plus subsistence. Did they also get housing?

Mr. TYLER. No; we didn't give them both subsistence and housing. If we gave them housing, we credited the subsistence to their pay. That is for the man himself. We had no family housing there at all.

Senator BRICKER. Mr. Chairman, just a question or so to clarify the record in regard to this base pay. Now, your wages paid are fixed by the Department of Labor?

Mr. TYLER. Under the Davis-Bacon Act.

Senator BRICKER. That is right. That is an area standard?

Mr. TYLER. Yes, sir.

Senator BRICKER. But that is generally fixed on the standard in the next large community. Do you know what that community was?

Mr. TYLER. I would not like to speak with authority on that, because I have never discussed this with the Department of Labor, but it is my understanding from both discussions with unions and contractors out there that the Los Angeles area is included within this area for some crafts. Las Vegas and Reno are used for others.

Senator BRICKER. Now, if it were based upon Los Angeles, do the terms of the overtime, whether you pay time and a half or double time, depend likewise upon the practice in the area, and is that determined by the Secretary of Labor?

Mr. TYLER. I believe that those are usually negotiated within States.

Senator BRICKER. Within States, after free negotiation between the contractor and the labor union?

Mr. TYLER. The associated general contractors on one hand and what is normally called the Building Trades Council on the other.

Senator BRICKER. The termination, though, of your base pay and the approval of your overtime payments are within the discretion of the Secretary of Labor, using a certain rather indefinite term in the law as to what a base area is?

Mr. TYLER. Well, I am no expert in this field, sir; but it is my understanding that your base-pay scales are determined under the Davis-Bacon Act in the Department of Labor.

Senator BRICKER. Now, has the Department of Labor anything to do with transportation costs and with your subsistence or housing allowances?

Mr. COLE. The Construction Industry Stabilization Commission in this case had to approve this, because it was a new contractor going into business in a new area. He also had to get his administrative rates approved by the stabilization agencies.

Senator BRICKER. Now, can you for the record give us what the base pay for a common laborer on this project is, or was?

Mr. COLE. The common labor is $1.75.

Senator BRICKER. Per hour?

Mr. COLE. Per hour.

Senator BRICKER. And what is the base pay of a foreman?

Mr. COLE. $2 per hour.

Senator BRICKER. $2. And what is the base pay for a plumber?

Mr. COLE. $3 per hour.

Senator BRICKER. And the foreman?

Mr. COLE. The foreman is $3.25, and the superintendent is $3.50.

Senator BRICKER. That is the highest rate; that of the superintendent, then?

Mr. COLE. You have two men above the journeyman.

Senator BRICKER. Above the journeyman plumber. What do the carpenters make?

Mr. COLE. The carpenters are $2.45. The carpenter foreman gets $2.70.

Senator BRICKER. Then you have the superintendent.

Mr. COLE. The general carpenters' superintendent is ordinarily an exempt person. In other words, he is salaried, instead of hourly.

Senator BRICKER. Those salaries are approved by the Government?

Mr. COLE. Those salaries are approved by the Wage Stabilization Board.

Senator BRICKER. And what was that figure put at in this contract?

Mr. TYLER. We have all the labor contracts here. You are speaking of carpenters, sir?

Senator BRICKER. Yes.

Mr. COLE. Those were $175 per week, plus $24.50 per week subsistence allowance.

Senator BRICKER. The Wage Stabilization Board came into play in this case because of the fact that it was a new contractor?

Mr. TYLER. A new contractor in that area.

Senator BRICKER. Why did they have to, if the wages were based on the standard wage in the Los Angeles area?

Mr. TYLER. The Department of Labor fixes the wages.

Senator BRICKER. That is what I was getting at. The Department of Labor fixes that entirely. Do you know whether this rate was fixed by the Secretary of Labor because of the fact that most of your labor was recruited in Los Angeles, or does the Los Angeles area spread over Nevada?

Mr. TYLER. Normally, it spreads over Nevada for some crafts.

Senator BRICKER. How far out of Los Angeles do the Los Angeles rates prevail?

Mr. TYLER. That I don't know, sir. We have no other work east of there.

Senator BRICKER. How many miles away is it from Los Angeles?

Mr. TYLER. Between 250 and 300.

Representative PRICE. Mr. Tyler, were there any other supervisory help involved here? How about foremen?

Mr. TYLER. The foremen come into this, but they are one level below this man.

Representative PRICE. Could you give us some idea of those wages?

Mr. TYLER. I don't believe there were any foremen in this particular operation.

Commissioner DEAN. Actually, practically all the workers at the control post would be in the category of laborers, common laborers, and carpenters.

Mr. TYLER. I find there was a foreman on the job.

Mr. COLE. $598.08, 3 weeks' average, in October.

Representative PRICE. You said something about the Nevada law. Would that eliminate the possibility of your doing this under a shift proposition to avoid overtime?

Mr. TYLER. Well, no, sir; it doesn't, except that in this particular case, for one thing, getting additional personnel for shift work would have been, in the first place, difficult, and in the second place, expensive.

Because with the transportation costs we were paying, plus the subsistence costs, and plus the fact that we would have had to provide twice as much housing, it would not have added up.

Representative PRICE. With the superintendent of foremen, would you have three men there that could have handled it on a shift basis?

Mr. TYLER. On a supervisory basis, you have to have a foreman on the job.

Representative PRICE. But do you have to have the same man?

Mr. TYLER. If you have two foremen, you require a superintendent. We had two foremen at least on that job.

Representative PRICE. But what I am trying to get at: Could they not have one foreman for 8 hours and another for 8 hours and another for 8 hours?

Mr. TYLER. Yes, but as I say, I think our labor costs would have been much higher over-all.

Representative PRICE. How would it have been higher if you would have eliminated all this overtime?

Mr. TYLER. It would have been spread wider among three people instead of among one.

Representative PRICE. No. I mean on straight time. They would be on straight time.

Mr. TYLER. Oh, no, sir. Not under the plumbers' contract.

Representative PRICE. That is what I am trying to get at.

Mr. TYLER. Under the plumbers' contract, as written and approved by WSB and the Labor Board, a plumber's day starts at 8 o'clock in the morning and ends at 5. If he comes in 1 hour and works from 5 to 6, he gets double time.

Representative PRICE. Is the situation that you describe peculiar to Nevada, or that whole area?

Mr. TYLER. I am not sure of this. I think it is reasonably common under those contracts.

Representative DURHAM. This ran for only a few weeks, too.

Mr. TYLER. This is transient labor, and they put the pressures on pretty heavily.

Representative DURHAM. As I say, it ran for just a few weeks. And the question of bringing in personnel to run three shifts presents a problem.

Mr. TYLER. It would have been very expensive. If we had been doing it for 6 months, it probably would have been worth while.

Senator ANDERSON. Did you not give that as $588? That is incorrect, is it not? Because the average of the superintendent is only $586.

Mr. COLE. I got the information earlier this morning, and the average on the plumber foreman just before we started over here, and I think it is obvious to me that this plumber foreman and Mr. Stewart are one and the same individual.

Senator ANDERSON. The same person.

Mr. COLE. There is not a foreman in there.

Representative PRICE. There is not a foreman on the job, then.

Mr. COLE. May I check this and send it back, sir? I believe that from looking at these comparative figures, it is obvious to me, knowing the number of people that were in there, that there was no reason for a foreman and a superintendent.

The CHAIRMAN. I am interested to know whether that provision about after 5 o'clock working is double time regardless of who the man is, all over the country. Is that so at Savannah River, Mr. Block?

Mr. COLE. This is only for single shift.

The CHAIRMAN. Let us assume that you want to put another shift on at Savannah River on plumbers. They start at 5 o'clock and they work 8 hours. Now, do they get regular pay, or would they get double pay because it is after 5 o'clock?

Mr. BLOCK. They get regular pay except certain periods on a second shift, where there is a small premium. Eight hours' pay for 7½ hours' work.

The CHAIRMAN. But that is all it amounts to. Because that brings up, as you can see, the questtion as to why we should be going only 45 hours a week at Savannah River. In other words, why not go 80 hours? It would be costing very little more money.

Mr. COLE. The 5 o'clock provision is where you have a single shift. If you were only going to have one shift of plumbers, and you didn't want them to work in the daytime when the carpenters were in the way, and you told them to come to work at night, they would charge you double time. But when you come to multiple shifts, it is permissible, under the agreements, to pay each shift on a straight-time basis except for these allowances of a half hour or 1 hour in some cases for night work. That is 8 hours' pay for 7 hours' work.

Representative DURHAM. But if he went to work next morning at 8 o'clock, he would not get that. The only thing was that you were going to complete it at night instead of the regular daytime.

Mr. COLE. The unions figure on the basis that you are inconveniencing them for your own convenience, and you have to pay.

Mr. BOYER. Would yout repeat your question as to Savannah River?

The CHAIRMAN. Why not two shifts, 40 hours each?

Mr. BOYER. There are two reasons. One is materials.

Senator ANDERSON. When you say "materials," will you explain why?

Mr. BOYER. Because we don't have the materials to keep the present shift busy.

Senator ANDERSON. Then why do you work 45 hours? Why not work 40?

Mr. BOYER. I think that is desirable there, to keep the employees——

Senator ANDERSON. In other words, it is a pay raise. Why do you not say it is a pay raise?

Mr. BOYER. You have to keep the people willing to come to work. The other reason is that when you work two shifts, of course, you work in the dark. That is because of the time factor. There you will pay something to get the time.

In the place where we are working two shifts, it is because we have materials involved, and you just can't get more people in the area during the daytime. So you work two shifts to accomplish something in the way of speed-up.

Senator ANDERSON. Are you working 54 hours some place?

Mr. BOYER. That's correct.

Senator ANDERSON. Do you work 54 hours each shift?

Mr. BLOCH. Yes.

Senator ANDERSON. In other words, a man gets credit for 68 hours a week? Why do you not work him 40 hours a week and work more people?

Mr. BLOCH. Right now we are short of people on particular crafts at that job.

Mr. BOYER. It is not an unusual practice, Senator, to work more than 40 hours in order to attract people to the job.

Senator ANDERSON. But is it not the basis of this 40-hour week that you try to cut down the number of hours? Didn't friends of labor represent that a man would do more work if you gave him a shorter workweek?

Mr. BOYER. But you have to keep people that are willing to work on their job.

The CHAIRMAN. In other words, you have a bigger demand than you have a supply in craftsmen. How wide an area are you recruiting, if you know, in Savannah River?

Mr. BOYER. Oh, there are people coming into Savannah River to live, I believe, 60 miles away from the site. Not commuting. The people at Savannah River have come in as far as several hundred miles away to work there.

Senator HICKENLOOPER. That is because they have never had it so good in their lives, is it not, most of them?

Mr. BOYER. No, that isn't correct, Senator. Because any construction job, where it is a big construction job, there are floating construction people. And they will gravitate to those areas where there is construction work.

Commissioner DEAN. We have lost 1,600 men at the Savannah River job, for the reason given that they could get a more attractive job elsewhere.

Senator ANDERSON. At Paducah?

The CHAIRMAN. How about that? Are you competing against yourself, Mr. Chairman?

Commissioner DEAN. I don't know what kind of a study we have which will show whether these men are in some cases floating from Savannah River to Paducah.

Senator ANDERSON. Did not a lot from Las Vegas come from Los Alamos?

Mr. TYLER. Quite a few; yes, sir.

Senator ANDERSON. You had to, because you were up against a Q clearance there.

Mr. TYLER. We encouraged it in a great many cases, because we needed those people.

Senator HICKENLOOPER. Mr. Chairman, may I ask this: Have you considered some device, in a situation of this kind, where you have both lump-sum contractors, who may be justified in bidding on what they believe to be a status quo condition, a stable condition, and who suddenly find themselves confronted by a cost-plus contractor who comes into the community on the same job and begins to offer very fancy and attractive working conditions indeed? Have you considered some device by which you can prohibit the solicitaton or the competition between contractors in that area for jobs?

In other words, prevent a cost-plus fellow from coming in and saying, "I will give you 10 hours overtime a day, or 5 hours overtime a

day, at double time, if you will come over and work for me;" whereas you have another fellow that had taken a contract—I am not taking sides in this; I do not know about the merits of the thing—like that McNeil situation, where it is a lump-sum bid for certain construction, and whether it was the fatal thing to McNeil or not, he undoubtedly found himself losing many of his essential workers to somebody that made the job more attractive just across the street?

Commissioner DEAN. Whatever may be the merits in the McNeil thing, I don't know, but I know that this is an unhealthy situation to have on the same general location a cost-plus-fixed-fee contractor and a lump-sum contractor. We had not anticipated we would ever have to do this. As a matter of fact, we had assumed it would all be a lump sum. And the reason for this cost-plus-fixed-fee contractor coming in at the last moment is that we had a change in program out there and added two shots, which called for the erection of a lot of complicated structures, using the kinds of talents that are involved in these crafts.

Now, that was a contract, unfortunately, which could not be let lump sum. We would have the scientists looking over it and saying, "Make that wall wider, and pull that one down. It was so inflexible.

Senator HICKENLOOPER. I understand you have many instances where you cannot bid lump sum. No contractor in his right mind would take it lump sum, because he does not know what the situation is. He is pioneering.

Commissioner DEAN. That was the situation here, and that complicated this. I am sure of it.

Mr. TYLER. If you will excuse me, I think, Senator, you pose a very difficult question on every angle. For one thing, I do not believe we could get a contract past GAO which had any such revision in it. Second, we could not require of our lump-sum contractors that he not hire from the other man, because then we would be in trouble on the grounds that the man has a right to work where he pleases. So the requirement could not be made to stick.

And further, to get into general thinking, this is a hazard of the construction business which exists in many places besides the Government operation. It exists in every town where there is any real work going on, and in which some people are working a 54-hour week and some people a 40-hour week, and the competition is there. The man either has to meet this competition and recognize it and accept it, or he goes out of business on that particular contract. This happened, I think, rather frequently.

Senator HICKENLOOPER. I am also thinking of one particular Government operation that is set up in a community, and I am reliably told they began offering 60 to 75 cents more than the going rate, and they just pirated labor out of every private industry in that community. It just disrupted everything. That is not the situation in this case. There is no private industrial operation working there.

Representative PRICE. Senator, may I make a contribution to this thought, there?

The CHAIRMAN. Yes; surely.

Representative PRICE. I had a case down in Paducah, where the plastering contractors were looking over the likelihood of some work, and this one contacted the superintendent in charge of the subcontracts, and the subcontracting superintendent, by the name of Mr.

Schneider, discouraged him from attempting to get a subcontract, because, he said, he would not be interested in it. I believe an exact quotation from this contractor, a man I know very well, one of the leading men in the business from the State of Illinois, is that he said he was informed by this Mr. Schneider that the work was small and he did not think he would be interested in it. And he remarked to Mr. Schneider, saying:

**It will require more plasterers in this work if you want to complete it rapidly. How do you plan to hire plasterers in an area such as Paducah, which has very few journeymen plasterers?**

Schneider is reported to have replied that his plans were to hire from far-away plasterers, since they could assure overtime with pay, whereas they were working straight time in the area.

This plastering contractor then questioned Schneider a little further as to how he would keep these people busy if the workload on plastering would fluctuate so widely as he had described in trying to discourage it.

Schneider then commented that that problem was very easily handled; he said they would simply be paid full time and overtime whether there was work to be done or not, until all plastering had been completed.

That is the system a lot of these cost-plus contractors are using on these contracts.

Commissioner DEAN. We will certainly look into this one.

Representative PRICE. I have asked the Commission to look into it, but I got the standard reply that it was necessary in order to push the project.

Commissioner DEAN. We will look into it, nevertheless, because if that is the situation it is not good.

I think, perhaps in answer to this one and in answer to Senator Hickenlooper's question, there may not be an easy solution, but the best solution lies in proper scheduling.

If we could so schedule, for example, that we did not have to give to a contractor adjacent to another one authorization to go to a 54-hour week, which means paying double time, in the case of the plumbers, and if you could schedule perfectly and did not run into these last minute rushes, then I think we could control it, because under our supervision we have the control over what workweek will be. But we got into a situation here at Nevada where it was fast and furious, and I doubt there was a simple answer.

Representative DURHAM. Well, Mr. Chairman, has not this project of atomic energy got into the minds of the people as being of such a character that everything we do has to be done on the minute, on the spot, right now? That is kind of the feeling. Now, I think it is better to take a contractor and give him 35 days or 60 days or 90 days or whatever he needs, instead of trying to crowd this thing into a compressed situation and have to pay double time and triple time and get criticized for it all over the country. It is a small matter here, but it made big headlines in every part of the country, and it is, of course, very difficult to answer without a thorough understanding of it.

Commisioner DEAN. That is very true. As a matter of fact, I contemplated going into the plumbing business myself, after reading the story.

Senator ANDERSON. You said this 45-hour workweek is not a question of the workweek but a question of raising the salaries.

What is to dissuade the next man from deciding he is going to work 48 hours, and taking in all the employees the 45-hour man has; and the next man going to 54 hours, taking over a whole batch more? In the meantime, you destroy the very principle for which I understood they fought for a long time, namely, a week of reasonable length, which permits the employee to get a little relaxation at the end of the week.

Commissioner DEAN. You get more efficiency out of them.

Senator ANDERSON. Exactly.

Representative DURHAM. I doubt whether you will find the States or the municipal governments or anybody else in this type of a situation. Because I am pretty familiar with the tremendous projects right there in my own home city at Chapel Hill, a tremendous medical school, probably, I suppose, around $20 million, where there is no double time on that, as far as I know and there has not been any. There has been progress there, as there has been on every State-road contract in the country.

I know of no condition like this, where we are paying time and double time on the thing, except in the Federal Government. And it seems to all be done by the agencies that have something to do with this war effort. Of course, I realize that you were in a jam out there. You probably got into it because we did not start early enough. We should have started earlier, probably. It was in the last 3 weeks, and you had to cram it in and get it done. And to bring in people, it is certainly more expensive than it would have been to pay a little extra overtime here. We can all say that. But at the same time, it made good headlines and good propaganda to ask me and ask the rest of us who represent the people, "What in the heck are you people up there doing with the money? Just throwing it out?"

The CHAIRMAN. I think this whole thing is very regrettable.

Representative DURHAM. Very.

The CHAIRMAN. The whole thing is regrettable, because apparently it will give the impression that this was a general procedure throughout the work. We find out that it is not. We find out, too, that the top bid was $896,000, and the job even with this exorbitant overtime will run to about $700,000 to complete it.

Senator ANDERSON. As a matter of fact, the bids read would indicate that the low bidder plus the extra the Governmetn might have to pay is under the second bidder.

The CHAIRMAN. It will be about $23,000 less than the next lowest bidder.

Mr. TYLER. The next lowest bidder.

The CHAIRMAN. This creates, gentlemen, a very bad impression among the people whose support we need not only for these huge projects that we have got on hand but for the bigger projects which are to come. And it is of vital importance that we retain, that the Commission retain, and justifiably so, the confidence of the people of the United States that they are not broadcasting the taxpayers' money.

Of course, we know, and we appreciate, the necessity for getting those tests off on time. It is vital to the interests of the security of the United States. I think it is important for the people to know that,

and to know the facts. But this was a regrettable situation, nevertheless, this seven-hundred-odd dollars to this fellow. And I think we ought to make a complete report. I think the Commission ought to have a complete report. In the meantime, we will make up a report on the basis of the facts as we now have them.

Representative ELSTON. Is it not also important to show, as to the double costs at the Savannah River project, why they are double? What is the principal reason? Is it a change in plans, increased labor cost, or what is it?

Commissioner DEAN. It is very unfortunate that any such observation as that should have been made over the radio. This is the story of Savannah River. When we first came in, about a year and a half ago, it became apparent to us that a new facility of the Savannah River type was indicated, and we had only the roughest type of a "guestimate" we could make as to the cost of that facility. The basis for our "guestimate," and I advisedly use that term, was the cost of the——

(Discussion off the record.)

Commissioner DEAN. At least, the facilities were quite different. There were new designs involved, completely new designs. And, as a matter of fact, they hadn't been designed, and the design is not yet complete, although the construction is well under way. When you give a figure to the Congress at that point, it is a minimum, an opener. And we said at that time $600 million.

Now, I was asked about 3 months later at a subsequent meeting of the House Appropriations Committee, "What does it look like now?" I said, "It looks like $900,000,000." That is the sort of thing that you have to do when you are constructing without having designed. And when you are trying to make a schedule to get the material out at the earliest possible date. Now, the actual fact is that it is going to cost more than that, and we have indicated that very frankly.

It seems to me you only have one objective, and that is to get it done without waste. And this is the effort.

But the alternative of not getting it done, of course, really is untenable.

The CHAIRMAN. What would you estimate or even "guestimate" the total contracts now being worked on to be?

Commissioner DEAN. The total Savannah River project is going to run in the neighborhood of $1,250,000,000. The total I would say at Paducah is going to run in the neighborhood of $475,000,000.

We have other facilities going on that are part of this network that are ancillary facilities, such as the one out at Texas, the one in Colorado, and the one that I referred to in the Middle West, without naming the facility. These are all important. And they connect. If one is not ready on time, the other doesn't work, and so forth. This is the kind of a schedule. And we may have to pay some overtime in connection with it. I think we ought to face up to it. We should not pay it where we do not have to pay it. But that is as much of a rule as you can follow, I think.

The CHAIRMAN. Are there any other questions, gentlemen?

Senator HICKENLOOPER. Mr. Chairman, I think that we have not completed any information on this subject that would warrant us issuing a report at this time, because I think we have just scratched the surface. It would seem to me that we ought to have, as long as we

have opened this subject up, an itemized statement of what this overtime has been, what these foremen and superintendents and so on have received week by week, what the overtime has been on the average common-labor scale, week by week, on this matter, if we are to give the public a fair show on this thing and get a fair understanding ourselves.

Then I think there is another phase of this matter. We have had developed by the staff here a chronology of events which perhaps you have. I think, Mr. Chairman, or I suggest—if there is a reason why it should not be, I am perfectly willing to listen to it—that this chronology of events be put in as a part of this record here.

The CHAIRMAN. It will be, and we have given copies to the press.

(The chronology referred to is as follows:)

INFORMATION ON WAGE PAYMENTS AT NEVADA TEST SITE

Mr. M. H. Stewart, a plumbing foreman for Haddock Engineers, Ltd., of Los Angeles, is reported to have received $756 for 1 week's work, as follows:

| | Hours worked | Straight time | Double time | Payroll hours | Pay, at $3.50 per hour |
|---|---|---|---|---|---|
| Monday | 24 | 8 | 16 | 40 | $140 |
| Tuesday | 10 | 8 | 2 | 12 | 42 |
| Wednesday | 13 | 8 | 5 | 18 | 63 |
| Thursday | 16 | 8 | 8 | 24 | 84 |
| Friday | 20 | 8 | 12 | 32 | 112 |
| Saturday | 24 | | 24 | 48 | 168 |
| Sunday | 16 | | 16 | 32 | 112 |
| Total | 123 | 40 | 83 | 206 | 721 |
| Plus weekly allowance for subsistence | | | | | 35 |
| Total pay | | | | | 756 |

The following résumé is based on data obtained from the AEC on January 29, 1952:

In the spring of 1951 the AEC successfully conducted its first tests at the Nevada test site using temporary facilities. It was then decided to construct permanent facilities to serve future tests at this site.

A new reinforced concrete control point was designed and bids for its construction advertised in April. Estimated cost of completed job, $700,000.

May 4: The bids for the control building were opened. McNeil Contracting Co. was low bidder with a figure of $617,000. (Subsequent changes increased this figure to approximately $660,000.) (4 bids in all; high bid was $846,000; estimated cost of completed job, $700,000.)

May 21: McNeil was awarded the lump-sum contract which called for completion in 90 days or by August 19.

June 22: Haddock Engineers, Ltd., came on the Nevada test site with a letter of intent to build about $6,000,000 worth of test facilities on a cost-plus-fixed-fee basis.

July: Early in the month McNeil was behind schedule on his job and he was having trouble keeping his labor.

August 4: This Saturday 19 out of 23 carpenters, 3 rod men, and 1 operating engineer quit McNeil (the lump-sum contractor) and went to work for Haddock (the cost-plus-fixed-fee contractor).

August 8: These men had been replaced by McNeil.

August 18: AEC wrote McNeil giving him until September 1 to get his job far enough along to make a September 23 completion date possible; this increased completion to 125 days.

August 23: 23 more of McNeil's men quit to work for Haddock.

September 20: Job was 65-percent complete against a schedule of 94-percent completion.

September 21: Mr. Reuben Cole, AEC construction engineer for Santa Fe operations office, wrote McNeil telling him that existence of a cost-plus-fixed-fee contractor (Haddock) on the Nevada test site was a normal hazard of the construction industry and did not constitute a change of conditions under article 9 of his contract.

September 24: Mr. Carroll L. Tyler, manager of Santa Fe operations office, wrote to McNeil Contracting Co., stating that his right to proceed further with the contract was terminated and that the contract itself would be closed out at the end of work on September 28. Under the contract final settlement will have to be negotiated. A contract appeal hearing is now in progress in Los Angeles.

September 26: Haddock Engineers, Ltd., were given a cost-plus-fixed-fee contract to complete the control point. First test was fired on October 22, 1951. At about the same time the control point contract was let, a lump-sum contract was let for a permanent camp site adjacent to the firing area. The lump-sum contractor on the camp site also fell well behind schedule, but his contract was not canceled. He did not complete his work until after the fall tests had been completed.

Senator HICKENLOOPER. And then I think another part of the inquiry should be to hear from, let us say, somebody from the McNeil outfit or somebody of that kind, as to what effect, for instance, the loss of 19 out of 23 carpenters on August 4 to this cost-plus group brought about, and the loss of three rodmen and one operating engineer, who went over to the Haddock Construction Co. We want to know what effect that had on paralyzing the McNeil operation at that time, whether there were other laborers or other superintendents in the area which he could have got hold of, or that were available to him.

Then, the loss on August 23 of 23 more of McNeil's men who went over to Haddock.

And what is the percentage of his total labor? What effect did that have on the completion of this vital job? I think we are justified in inquiring into this thing.

(The following letter was supplied for the record:)

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 5, 1952.*

Hon. BRIEN MCMAHON,
*United States Capitol.*

DEAR MR. CHAIRMAN: Last Wednesday afternoon, January 30, I was unavoidably and necessarily absent from the open joint committee hearing on the payment of $756 for 1 week's work to a plumber employed on a construction project at the Nevada atomic test site.

If I had been present, I would have pointed out how the whole episode affected a contractor of the United States Air Force active in the same geographical area. This contractor was engaged in building needed structures at the Nellis Air Force Base, located outside Las Vegas and near the atomic test site. At about the same time the plumber received $756 as 1 week's pay, the Air Force contractor to which I refer discovered one morning that nearly all its workmen had disappeared. Some time elapsed before the contractor could even determine why large numbers of the workmen, with no advance warning, simply did not report for duty.

What had happened was that these workmen were called into the union hall and were told that they could earn lush overtime payments if they accepted employment with the same cost-plus-fixed-fee Atomic Energy Commission contractor which hired the plumber. In other words, this latter contractor not only pirated employees from McNeil, the company which originally had the job of building the atomic energy facility considered in the joint committee hearing, but also the identical cost-plus contractor pirated employees from the company building necessary structures at the Nellis Air Base.

I want to state very frankly my opinion that the situation which was allowed to develop in the atomic construction job, and which lured away many employees of several lump-sum contractors in the area, was decidely unfair. In my judg-

ment, the lump-sum contractor originally assigned the job of building the atomic facility was unjustly discharged from that work. Furthermore, I believe the latter lump-sum contractor is entitled to damages in the breach-of-contract litigation now underway in Los Angeles.

I would be grateful if this letter could be inserted into the published record of the joint committee hearing.

Sincerely yours,

CARL HINSHAW, M. C.

The CHAIRMAN. Senator, I most assuredly agree with you.

As I was trying to indicate, we want a thorough report on this whole business. That was the only thing I was trying to indicate.

Of course, we can't issue a committee report.

Senator HICKENLOOPER. Oh, I understood you to say we would make a report on the basis of this hearing.

The CHAIRMAN. Oh, no. I think any member is entitled to make any statement he desires on the basis of what he has heard today, but as far as the committee acting on the matter, we must complete the investigation of the items which you have suggested.

Senator HICKENLOOPER. But just to make this further situation clear, I had thought originally of asking Captain Tyler or Chairman Dean or Mr. Cole or somebody whether or not they thought that the loss of these men had fouled up McNeil's contract to the point where it made it impossible under the circumstances for him to complete it. In view of the fact that there is a hearing going on, and you probably hesitate to answer on that matter here at the moment, I thought I would not ask you about those matters, because you may have to give your judgment on it, unless you are prepared to give it at the present time.

Mr. TYLER. Mr. Cole is leaving tonight for Los Angeles to appear before that hearing.

Commissioner DEAN. The single issue in that hearing at the moment before the Contract Appeals Board is whether or not the AEC was justified in breaking the contract. There is no consideration of dollars, and the subsequent damage, but they want this determined first, and that will be the determination.

I thing some of what we might say would go to that.

Senator ANDERSON. But do you not think, Mr. Dean, when the people out there on the job saw that 19 out of 23 of McNeil's carpenters quit and went over to Haddock they should have said, "We did not give you a license to take everybody off every other job?" It does suggest to me that when an exodus of that kind takes place, AEC has some responsibility to say to the cost-plus contractor, "We do not like it, and we want you to stop it."

I do think you are going to have to do that in the future, or you are going to be in trouble on every one of these jobs.

The CHAIRMAN. All right, gentlemen. We will be hearing from you further.

Commissioner DEAN. I have made a list, here, Mr. Chairman, of the various things that the committee members have asked for. We will attempt to pull these together. I think they will constitute the kind of record you are talking about.

(Whereupon at 4:15 p. m., Wednesday, January 30, 1952, the hearing was recessed, subject to the call of the chairman.)

# APPENDIXES

## APPENDIX A

### STATEMENT OF SENATOR MCMAHON, CHAIRMAN OF THE JOINT COMMITTEE ON ATOMIC ENERGY, JANUARY 31, 1952

In the past 2 days the press has carried stories concerning exceptionally high wage payments made to workers at the Nevada test site of the Atomic Energy Commission. These reports are based on certain contract appeal hearings now in progress in Los Angeles. In these hearings it was developed that a plumbing superintendent received $756 for 1 weeks' pay and that similar exceptional wage payments had been made at the Nevada test site of the Atomic Energy Commission. The Joint Committee on Atomic Energy held a public hearing yesterday afternoon in order to determine the facts concerning wage payments at the Nevada test site. The facts, as developed in this hearing, are as follows:

Mr. M. H. Stewart, plumbing superintendent on the control building was paid $756 for 123 hours of work during the week of October 16. This is the week directly preceding the start of the fall atomic tests at the Nevada test site. Mr. Stewart was paid $3.50 per hour, which is the legal minimum established by the Department of Labor as required by the Bacon-Davis Act, for plumbing superintendents in the Las Vegas area. Double time and only double time was paid for all hours worked after 5 p. m. on week days and all hours worked on Saturday and Sunday. These double-time payments were in accordance with the agreements between the construction labor unions and the associated contractors in effect in the Las Vegas area. These rates apply on all single-shift operations, and construction at the Las Vegas test site as set up as a single shift operation. Thus, Mr. Stewart's payments, considering the hours he worked, were the minimum permitted under the law and the labor union agreements in effect in the area at the time.

The Atomic Energy Commission gives the following reason as a cause for the exceptional circumstances which required this plumbing superintendent to work 123 hours in 1 week. The control building is the nerve center in the operation of the Nevada test site. The building construction contract was originally awarded to the McNeil Construction Co. of Los Angeles on May 21, on a lump-sum basis, as the low bidder. The contract called for completion in 90 days or by August 19. Five bids were received for this work. McNeil's bid was $618,000. This sum was subsequently raised to $660,000 as the result of certain additions to and changes in the building design. The next lowest bidder submitted $723,000 as its figure, and the highest bidder, Haddock Engineers, Ltd., bid $896,000. The successful bidder was required to obtain a performance bond. McNeil's performance bond is for slightly over $300,000. On June 22, Haddock Engineers, Ltd., was awarded a cost-plus-fixed-fee contract for approximately $6,000,000 to erect certain structures required in the shot area for scientific measurements and observations. These structures were designed by the scientists in the field, and it was therefore impossible to put this work out on lump-sum as no designs were available. To further complicate the work of Haddock Engineers, additional tests were added to the schedule during the summer of 1951, and these tests called for additional structures. In order to complete the job on schedule, Haddock Engineers regularly worked its employees overtime and its workers received overtime payments each week. As a result of these overtime payments, great pressure was placed upon lump-sum contractors such as McNeil to pay similar high wages on penalty of losing their workers to the cost-plus-fixed-fee contractors. McNeil did in effect lose large numbers of his workers to Haddock Engineers. By mid-September, McNeil had fallen behind on his construction work to such an extent that drastic action was required in order to complete the control building on time.

When it became clear on September 24 that McNeil would not have the control structures ready for use by bomb testing time, the Commission terminated his contract and gave Haddock Engineers, Ltd., the cost-plus-fixed-fee contractor on the job, a cost-plus-fixed-fee contract to complete the control point. Under Government contract law, the Commission was precluded from awarding the cost-plus-fixed-fee completion contract to McNeil, for the law specifically states that the Government may not alter a contract in favor of a contractor. In view of the legal restrictions and McNeil's unwillingness to pay the necessary overtime rates for his own economic reasons, it was decided to award the contract to some other firm. Haddock was on the site. There were only 15 days left in which to complete the structure, and the Commission therefore awarded the cost-plus-fixed-fee completion contract to Haddock. The latter in effect took over McNeil's labor force and added to it, completing the structure in time for the test. Mr. Stewart, the plumbing superintendent who received the $756 pay check, was originally an employee of McNeil but was on Haddock's payroll during the week of October 16 (the week before the tests were scheduled to begin) when he received the $756 payment. As plumbing superintendent, he was familiar with details of the job; and it was actually cheaper, the Commission testified, to pay overtime wages to the plumbing superintendent and the other construction workers on the control point than it would have been to have delayed the tests, thereby requiring 600 scientists and 2,800 Army and Air Force personnel to stand idly by at an estimated cost of $30,000 per day, excluding the cost of the Army and Air Force personnel. Moreover, if another individual had been called in to relieve Mr. Stewart, the new man—under the union contract—would have been paid at the same double-time rates, and cost to the Government would have been the same.

As the Chairman of the Atomic Energy Commission indicated, this is not a situation which the Commission likes or condones; but there was in effect no other realistic alternative if the tests were to be carried out on schedule.

The control point was not fully complete at the time of the first test shot, but it was completed to the point where it could be fully utilized for the test. Haddock Engineers finally completed the building after the tests were concluded. All of this final completion work following the test was done on a straight-time basis. The Commission estimates that it will cost between $50,000 and $100,000 extra for the completed control building. That is approximately $700,000 to $750,000, as opposed to McNeil's bid of $660,000. This would bring the cost up to approximately that of the second lowest bidder and $150,000 to $200,000 below that of the highest bidder.

It should be emphasized that these excessive overtime payments are peculiar to the Nevada test site construction program and are not to be found at other large Commission installations. The work schedule at Savannah River, for example, originally started out on a standard 40-hour week. Because of the pressure for completion of this vital national defense project, the schedule has now been moved up to 45 hours per week, with the extra 5 hours being paid for at time and one-half. There is no double-time overtime at the Savannah project, as the local union contracts here call for time and one-half for overtime. At Paducah, the standard work schedule is 48 hours per week, with time and one-half for overtime for all time in excess of 40 hours being paid at this location. In both of these plants, a three-shift schedule is provided for in the union contract, so that overtime is not normally paid for work after 5 o'clock. There is a premium for second- and third-shift work that amounts to 8 hours pay for 7½ or 7 hours work. The Commission said that this, too, is a standard construction industry procedure.

At one sensitive AEC project in the Middle West, whose completion has been delayed by engineering and other difficulties, a 54-hour week schedule is being used in an effort to make up lost time. Each of these facilities forms a link in the chain of production of atomic weapons; and delays in completion of any of the links delay the production of atomic weapons. The Commission measures the cost of these delays against the cost of overtime payments at a particular project in determining how much overtime should be paid at a specific project which is behind schedule.

With regard to the charges that the cost-plus-fixed-fee contractor pirated labor from the lump-sum contractor, it is worth pointing out that there were several other lump-sum contractors on the Nevada test site in addition to the NcNeil company. One of these contractors built the important power generating facilities. This contractor completed his job in time for the tests, and AEC has advised that during the week of October 16 he paid two of his electrical

foremen in excess of $700 per week in order to complete his job on schedule. In his case, it was also necessary to carry out certain final completion work after the tests had taken place; but here again the facility was usable in time to make the test schedule. This contractor received no extra payments from the Commission. The same is true of several other lump-sum contractors who got their facilities into usable condition in time for the test and added the final finishing details after the tests were completed. The Commission's reason for canceling NcNeil's contract was not that he failed to have his structure completed within the 90-day schedule or even within the 125-day revised schedule, but rather that he refused for his own economic reasons to speed up work sufficiently to insure that the control building would be usable in time for the tests. He thus failed to do what the other lump-sum contractors did in fact do, in spite of the competition from the cost-plus-fixed-fee contractor.

The joint committee has requested a full report from the Atomic Energy Commission concerning all overtime payments on construction at the Nevada test site, together with a report concerning overtime wage payments at all other major construction sites. The joint committee plans to continue to study this matter until all facets have been exhaustively explored.

In connection with press allegations as to the burning of $30,000 worth of form lumber at the Nevada test site, AEC advises that when Haddock Engineers took over the McNeil contract, they found the construction area around the control building practically unusable due to the trash and lumber strewn about the area. Haddock surveyed the area with the architect-engineer, Holmes and Narver, together with local AEC representatives, and all three agreed that the debris (including quantities of used form lumber) should be gathered up and burned in order to clear the site for more efficient access to the area. The Commission maintains that no individual or group of individuals at this time or at that time were able to agree upon the value of this lumber.

Further investigation is now being made by the joint committee.

# APPENDIX B

The material in the appendix that follows consists exclusively of papers from the unclassified files of the Joint Committee on Atomic Energy. All information set forth has been officially determined to be unclassified.

## A DIRECTIVE FROM THE CHAIRMAN

This appendix is printed in accordance with the request set forth in the following letter from Senator McMahon, chairman of the joint committee:

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 15, 1952.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*United States Capitol, Washington, D. C.*

DEAR BILL: In listening to the testimony about the plumber who made $756 in 1 week working at the Nevada test site, the idea came to me that it might be helpful to the Congress if the published record of the testimony could be supplemented by an appendix which sets forth papers taken straight from the Joint Committee on Atomic Energy unclassified files concerning some of the similar or parallel problems which we have investigated.

I appreciate that many of the items that might be most illustrative and interesting are classified and therefore could not be published. I also appreciate that many of the unclassified items do not lend themselves to publication for various reasons, such as compromising the identity of certain sources.

However, I wish you would pick out typical cases among the hundreds which our unclassified files contain and have them printed as an appendix. I have no objection if some of the papers are relatively informal, since I think it might be of interest to the Congress to have available first-hand examples of how the joint committee has functioned as regards specific episodes involving complaints of extravagance, injustice, improper administrative practice, and the like.

Since the joint committee is charged with responsibility for considering matters of the highest policy and broad problems that go to the root of our atomc preparedness, it has not been easy to explore in addition the hundreds and indeed thousands of specific inquiries and complaints and "leads." Nevertheless, countless man-days have been devoted by the committee and by its staff to this latter phase of committee responsibility, and I am desirous that the public record as to this phase be expanded.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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## GOVERNMENT EQUIPMENT AT PADUCAH

UNITED STATES SENATE,
COMMITTEE ON AGRICULTURE AND FORESTRY,
*January 30, 1952.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Suite No. F-88, United States Capitol, Washington, D. C.*

DEAR SENATOR MCMAHON: I am enclosing herewith a letter which I have received from [Mr. X—actual name and address withheld] Paducah, Ky., and a telegram from [Mr. Y—actual name and address withheld] Paducah, Ky., concerning certain activities at the atomic-energy plant at Paducah. I have been

authorized to make this information available to your committee. I shall appreciate your looking into this matter, and when you have further information I should like to be advised.

I should like to have the enclosed material returned for my files after it has served its purpose.

Sincerely yours,

JAMES P. KEM.

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JANUARY 4, 1952.

DEAR SENATOR KEM: I am writing you some facts, and things that go on here at the AEC plant in the Kentucky area. I am a construction worker on this plant. One does not have to wonder why we pay the high taxes we do. When you work on some of these jobs and I may state I have worked on them for the last 12 years. I will state my facts to you and this is only one of the many, that goes on here which has not one thing to do with national defense program. You may know that, that we have had a bad ice storm in this area. And at times the electric power has been off.

Now: When three electricians and two AEC or Government trucks spend one-half day at the taxpayer's expense to move a 5-killowat portable power unit to one of the F. H. McGraw's high official's home so he may have power, that really is something. The F. H. McGraw Co. is the prime contractor on this AEC job in the Paducah, Ky., area. I will also state that these men worked 1½ hours overtime at double time on this particular job. I am sending this letter to my father at [place name withheld] who will remail it to you. I know that way you will receive it. I can get sworn statements from these men who did this job. And wonder what action will be taken on your part. I know that if this is broken out in the open that I would no longer have a job with this company but will take my chances on that.

Yours truly,

[Mr. X]

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 8, 1952.*

Hon. JAMES P. KEM,
*United States Senate.*

DEAR SENATOR KEM: You wrote to me on January 30, 1952, regarding charges of irregularities at the Atomic Energy Commission plant near Paducah, Ky.

The charges, as reported to you by [Mr. X] and [Mr. Y] were to the effect that Government equipment was transported to McGraw officials' homes for their personal use and that, for those services, plant-construction employees were paid overtime. Your letter arrived in the February 1 mail, and, on February 2, I had a staff investigator en route to Paducah to explore every aspect of this matter. He has reported to me as follows:

On January 2, 1952, normal activities throughout Paducah and McCracken County, Ky., were suspended as a result of an ice storm. Electric power had been put out of order, and most telephones were inoperative. It was necessary to close down building operations at the atomic-energy plant site.

The electric-power failure lasted about 2 days at the plant site and about 4 to 5 days in the case of residential consumers. Homes having electrically controlled heating systems were without heat; and many families, especially those with small children, had no choice but to move out of their houses to places where heat was available.

During the period of electrical and heating systems failures, it was necessary that the three top officials of the prime contractor, F. H. McGraw & Co., be on 24-hour emergency duty in order to safeguard plant property. (The McGraw Co. is alone responsible to the Government for protection of property at the Paducah plant site.) The three responsible officials are:

Fred J. Mayo, project manager and vice president of F. H. McGraw & Co.; Jack Tearney, general electrical superintendent for McGraw; and J. M. Curlee, assistant deputy project manager (for construction matters).

Each of these men was on emergency call, and each spent the better part of 24 hours at the plant in an effort to effect a resumption of electrical service. Likewise, each of these men has a family, including small children, and their houses, too, were without lights or heat; but they did have phone service.

It became apparent that if these men were to be available during the emergency created by the ice storm, they would require some means, such as a portable power unit, whereby they could put their electrically controlled furnaces back into operation. Failing this, the 24-hour services of these men would have been lost because of the necessity that they evacuate their families from homes at freezing temperatures.

Three portable power-generating units were sent to the homes of the men mentioned above. Those workmen who performed the labor were paid overtime for part of the job. The equipment used was project equipment. However, the general electrical superintendent of F. H. McGraw & Co. was instructed beforehand to keep accurate records of all labor and equipment, so that the prime contractor could make full reimbursement to the Government for all charges. This was done, and payment has already been made.

All equipment used by F. H. McGraw & Co. is rented to that company by the Government. The workmen who took part in installing the generators are F. H. McGraw & Co. employees. The total cost of labor and equipment (some $500, including overhead charges) has been paid by the company on a nonreimbursable basis out of its own funds.

My investigators contacted [Mr. Y], Paducah, Ky., and officials of the Atomic Energy Commission and F. H. McGraw & Co., in making his inquires. * * * If you desire further details on this matter, I'll be pleased to make them available.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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## ALLEGED LAND SPECULATION AT PADUCAH

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., May 21, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: Reference is made to your letter of March 13, in which you raised a question regarding alleged land speculation and unusual interest in the liquor business in the vicinity of the atomic energy project near Paducah, Ky. Copies of your letter and attachments were made available to the Federal Bureau of Investigation for any investigation believed warranted.

In view of our submission of this matter to the FBI for investigation, and also because of the nature of the subject matter, our Oak Ridge office has confined its examination to a limited and discreet inquiry which has revealed the following information:

The first inspection of the Kentucky Ordnance Works plant, which is the site of the project, was made by representatives of the Oak Ridge operations office on September 8, 1950. This site location was approved by the Commission on October 18, 1950, and the information was released to the public on December 15, 1950.

The district engineer, Corps of Engineers, Louisville, Ky., was requested to make an analysis of land transfer from the time of disposal by the Government until it was repurchased by the Government. He has advised that this examination has revealed no evidence of speculation in land acquired for the project. His report states that public records indicate that only three resales were consummated in 1950, and that the last transfer of property occurring prior to the present acquisition was completed on October 31, 1950. He further estimated that the over-all average cost of the land acquired by the Government was approximately $86 per acre, which we believe to be about the the average value of all land both on and adjacent to the project site immediately prior to the December 15 announcement.

From well-informed real estate sources in Paducah we were unable to learn of any changes of ownership of land in the immediate vicinity of the site from October 1 through December 15, 1950. We are, however, searching county records for such information at the present time. Since December 15, there has been considerable interest in the land next to the site. A parcel of land consisting of 45.5 acres was purchased at a cost of $10,563 by an operator for the relocation of 250 Oak Ridge prefabricated housing units. Another tract of land, consisting of

50 acres more or less, adjacent to the site has been quoted and is now under option for $10,000 and another tract of land of 140 acres has been offered for sale at $150 per acre. With regard to land bordering the site and the allegation that the value of this land has increased from $100 to $1,000 per acre, comparison of the above values with the over-all average value of land acquired for the project site tends to indicate that the increase in value for lands adjacent to the site has averaged about $100 an acre.

Concerning the question of multiple options, we understand that two parties claim option on one parcel of land adjacent to the site but this could not be confirmed because options are not normally recorded in MacCracken County.

Upon inquiry, Mr. John Kirksey, Administrator of the Distilled Spirits Unit of the Department of Alcoholic Beverage Control and a member of the Alcoholic Beverage Control Board for Kentucky, stated that there was no unusual interest in the liquor business in MacCracken County prior to December 15, 1950, as implied in the news item appearing in the Louisville Times on April 7. We also understand that there were no licenses issued for the sale of alcoholic beverages in MacCracken County from October 1 to December 15, 1950; that two applications for transfer of licenses were made on January 26 and January 29, 1951, respectively, and that both of these applications were made by local citizens of good character, and were approved on March 1, 1951.

If any significant developments bearing on this matter are brought to our attention we will advise your office accordingly.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

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## A LABOR COMPLAINT ABOUT PADUCAH

FEBRUARY 11, 1952.

Memorandum to the files.
From: William J. Bergin, Joint Committee Staff.
Subject: Complaint about Paducah labor.

On a trip to Paducah to check upon various matters, I got in touch with Mr. X [actual name and address withheld] regarding a complaint he had made about labor conditions at the AEC Paducah site. Mr. X's complaints were:

(1) "A man that works there [in Paducah] told me that someone turned over a keg of nails, the boss called a federation man to pick them up, and they called the carpenters off, some 600 of them."

(2) "Another worker said a big bunch of workers would punch the time clock and wait for hours in a large room till another bunch would come in and they would go to work and the other gang would do the same."

I identified myself to Mr. X's satisfaction and asked him if he would identify the men referred to in his complaint, so that I could make a complete and specific inquiry regarding the allegations. I promised their identities would be kept in closest confidence. Mr. X replied he didn't remember who had told him those things, and in fact he had heard them while with a group in a filling station in the city where he lives in Illinois. He wasn't sure whether one or two persons had actually made the statements about which he wrote.

At the AEC plant site near Paducah, Ky., I conferred with Mr. Will Hay, Chief of the Personnel Branch, which office includes responsibility for labor relations. He advised me that as to item (1) mentioned above, there was no record of a carpenters' strike because of such an occurrence or even that such an occurrence had ever taken place.

As to item (2) above, what Mr. X referred to apparently took place at a shift change. Many employees on the second shift arrive early to get advantageous parking places and also to visit with other project workers on the same duty tour, punch in, and wait until the shift actually changes before going to work. Pay for these workers does not begin until the hour their shift is scheduled to start.

It seems possible that the "other gang" were employees who arrived at the job a short time before starting work. This would account for one group of workers waiting around "till another bunch would come in."

W. J. B.

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W. J. B.

## ANOTHER PADUCAH EPISODE

NOVEMBER 5, 1951.

Memorandum
To: Mr. Borden (staff director).
From: W. A. Hamilton (joint committee staff).
Subject: Allegations concerning Paducah project.

As you know, the joint committee received allegations concerning wages, working conditions, and material receipt handling procedures on the F. H. McGraw & Co., job for the Atomic Energy Commission at Paducah, Ky., on November 1, 1951. During an inspection visit to this site on November 3 and 4, it was possible to make certain inquiries concerning the allegations, although in no case were the charges accompanied by information concerning the workers said to be involved, or the date on which the incidents described took place.

The allegations received by the joint committee, together with findings, are as follows:

1. An iron worker received $78 in one 12-hour day.

This was checked against wage rates. Ironworkers on this job receive $2.50 per hour, as established by the Department of the Interior and the area wage agreement. They get double time on Saturday. It would be extremely abnormal for an ironworker to put in more than 8 hours on a Saturday, for which work he would receive $40. It is possible, however, that if the ironworker were assigned to reinforcing steel work, he might find himself on a job involving a concrete pour which started as early as 3 a. m. on a Saturday and which might have run as high as 15 or more hours. In such an event, the ironworker could have earned as much as $78.

2. A new lumberyard employee spent his first day riding around the project, doing nothing, and getting double-time pay.

Since necessary equipment is completely utilized during daylight hours, all lumber movement between the central yards and area yards is carried out at night. Accordingly, a new employee could not perform his job at night if he had not had some opportunity during daylight hours to see where the areas were and how they were laid out. The double-time pay allegedly received would be normal for Saturday, a regular workday on some parts of the project during certain construction periods. It is impossible to give a more complete explanation of the alleged episode without the name and actual job assignment of the individual involved.

3. A trucker delivered some large tanks to the project. Delivery-handling procedures were unnecessarily disorganized, men were observed loafing, and the large portable crane used to unload the truck was being misused.

Mix-ups in unloading schedules sometimes do occur. If the load arrived late or in some other manner off-schedule in either time or location, a certain amount of confusion would be likely. Because of an absence of loads requiring their particular skills, crews at warehouses are not always fully occupied at all times. Union regulations with regard to handling procedure are quite definite. Even if the crane described was larger than necessary for the job, AEC points out that it was being utilized rather than standing idle, waiting for an optimum load, with the consequent necessity of having smaller specialized cranes for small loads. The actual case cannot be checked without having one of the following items: Trucker's name or firm name; exact character of the load delivered; or the actual day of delivery.

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## AN INVESTIGATION AT PADUCAH

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*September 21, 1951.*

Representative A (actual name withheld),
*House of Representatives, Washington, D. C.*

DEAR CONGRESSMAN: Through my committee staff I have been closely following the situation as to Messrs. X and Y [actual names withheld].

The former gentleman advanced three main sets of allegations: That he personally was being discriminated against; that security is not being properly handled; and that there existed various improper practices even involving dis-

honesty. It was as a result of your original letter to me that we became aware of his charges; as a matter of fact, as soon as I saw the letter, I had two of my men go immediately to Mr. X and they talked with him throughout a whole evening. Since that time, literally hundreds of man-hours have been expended in investigating and checking upon the serious charges; that is, the charges of poor security and improper practices.

As far as I can tell to date, after what, believe me, has been really a thorough inquiry, the serious charges cannot be substantiated except as to certain details, namely a theft case involving $30 worth of material. Even as to this case, we had known that the FBI was investigating such a matter. We had also known, prior to contacting Mr. X, of certain irregularities in procurement procedure and the corrective steps being taken. The latter problem, incidentally, did not appear to involve any illegal money profit to any individual.

This leaves us, then, with the charges of personal discrimination against Mr. X himself. Of course, in a project as big as the atomic enterprise, with 100,000 full-time employees, hundreds of firings, dismissals, job terminations, etc., take place each year. It is pretty tough to look into any one case with sufficient thoroughness to come up with a considered judgment.

I think it is important to stress that Mr. X, as well as Mr. Y, is an employee not of the Atomic Energy Commission but of a private contractor, to wit, the McGraw Co. Furthermore, X, I understand, voluntarily resigned his prior employment with AEC in order to go with McGraw at a considerable increase in salary.

It has always been a basic AEC policy that employees of contractors in the project are considered to be not Government employees at all, but in the same position as any member of a purely private industrial firm. The only conditions are that AEC be able to run a security check on the contractor employees performing atomic work and that also the AEC be allowed to veto the employment of an individual having a certain degree of authority and salary. From AEC's viewpoint, therefore, this fracas is a matter between the contractor, F. H. McGraw, and X himself.

I am told that Messrs. X and Y are entirely free to apply for AEC employment or for civil-service employment. I know that at least X is a veteran, and this would be a favorable factor in his chances of working for the Government if he wishes to do so. Thus I think it just cannot be said that there is any blacklisting within the Federal set-up.

The situation as to the McGraw Co. and private firms in the construction industry may or may not be different. Of that I have no knowledge, but I might mention again that, as far as AEC policy is concerned, McGraw and its employees are exactly in the position of any ordinary company doing business on its own and in its own way.

I am grateful to you for contacting me about Mr. X because we cannot afford to leave any lead unexplored and unexamined. I would also be interested to know of new developments in this case that may come to your attention and which might bear on what I have said.

I much hope that this letter will be useful to you in considering the case, and if you have any further comments, naturally I would welcome receiving them.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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## AN EXCHANGE ON HOUSING

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*August 27, 1951.*

Mr. RAYMOND M. FOLEY,
*Administrator, Housing and Home Finance Agency,*
*Washington, D. C.*

DEAR MR. FOLEY: The continued serious shortages of housing and community facilities created by the location of Atomic Energy Commission projects at the Savannah River and Paducah areas impresses me as cause for real concern. Frankly I am disappointed that the measures already taken seem not to be producing the needed results, particularly as regards permanent housing.

For the use of the Joint Committee on Atomic Energy I would greatly appreciate a succinct but comprehensive report on how soon and in what specific ways

the Defense Housing Act will be utilized by your Agency to contribute toward the solution of these problems.

I would likewise appreciate your estimate, in the report, as to the likelihood of success in the new measures you will undertake and a summary of any further measures you could later adopt under existing law in case the initial steps turn out to be inadequate.

Thank you very much indeed for this assistance.

With kindest regards,

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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HOUSING AND HOME FINANCE AGENCY,
OFFICE OF THE ADMINISTRATOR,
*Washington 25, D. C., September 11, 1951.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington 25, D. C.*

DEAR SENATOR MCMAHON: This is in response to your letter of August 27, requesting a report on the manner in which the Defense Housing and Community Facilities and Services Act of 1951 will be utilized toward the solution of the housing problem at the Savannah River and Paducah installations of the Atomic Energy Commission.

First, I would like to indicate the character of the housing problem created at those two sites and to review the steps which we have already taken in an effort to provide a partial solution. When requested by the Atomic Energy Commission to assist with the housing at Savannah River and Paducah, I sent a special representative to each area to make a survey of the need for housing and related facilities. These surveys disclosed that at least 3,600 permanent living units at Savannah River and 1,000 units at Paducah would be necessary to house the eventual operating force. It also became clear that there would be a need for a substantial number of temporary dwelling accommodations at both places to house temporary construction workers and their families. These surveys further revealed that the full housing needs at these sites could not be fully satisfied without substantial additions to the basic community facilities such as schools, hospitals, water supply, sewers, streets, and roads.

A a result of these surveys it also became clear that existing authorities would be inadequate to provide a complete and satisfactory solution to the problems. No authority existed, except that of the Atomic Energy Commission, for the provision of temporary housing. There was no authority to assist the local communities in the construction of the required community facilities. Even the Government's peacetime housing programs were ill-adapted to induce the private production of the type of housing needed at the two installations. These limitations on our authority were communicated to the Chairman Gordon Dean of the Atomic Energy Commission in my letter of January 22, 1951, at which time I told him that if we were to be expected to work out an effective solution to the housing problems at Savannah River and Paducah we would need many of the authorities contained in the then pending defense housing and community facilities and services bill.

Pending passage of the bill, however, we took every step within our authority to assist in the provision of the needed housing at the two atomic energy installations. With the concurrence of the Federal Reserve Board, the credit restrictions were relaxed in order to assist in the production of the volume of permanent housing which could be supported by the existing community facilities in each area. In addition, the funds of the second advance planning program were made available to communities in the two areas to assist them, insofar as the limited funds would permit, to plan the needed community facilities.

That our efforts so far have been of only limited effectiveness is due not only to the inadequacy of our basic authorities but also to the severe shortage of mortgage funds which has developed in the private market during the past few months. This shortage of long-term financing has held up many builders in both areas who had received FHA mortgage insurance commitments under the relaxed credit terms and were ready to start construction.

As you know, the defense housing and community facilities and services bill became law on September 1. In addition to providing the new authorities which were needed to cope with a housing and community facilities problem such as that at Savannah River and Paducah, this law also authorized the Federal

National Mortgage Association to commit to purchase up to $200,000,000 of mortgages for defense and disaster housing.

Pursuant to this last authority the FNMA has already earmarked sufficient funds to assure a 100 percent purchase of mortgages on all housing programed at Savannah River and Paducah. This action will immediately remove the financing obstacles which have stood in the way of the construction of the housing already programmed at the two locations. As a further incentive, we have just taken action to lift the credit curbs completely from all previously programmed housing. This action will mean no liberalization of terms on programmed rental housing because the previous relaxation had reached the statutory maximum. However, the terms on programmed sales housing will be further liberalized by this action.

The new law authorizes a liberalized program of FHA mortgage insurance for defense rental housing which will provide much greater incentive to private builders to produce the type of housing needed. The law also provides authority, and a limited authorization, for the construction by the Government of temporary and permanent housing for defense workers as well as for loans and grants to assist localities to construct the necessary community facilities such as water, sewers, roads, streets and hospitals. When these authorities have been implemented by the necessary administrative appropriations this Agency and the Federal Security Agency, which has responsibility for certain of the community facilities, will be in a position to provide much more effective assistance in Savannah River and Paducah than we have been in a position to do up until now.

An Executive order is now being drafted which will identify the respective responsibilities of the Housing and Home Finance Agency and the Federal Security Agency for community facilities under the new law. At the same time, budget requests for the necessary administrative expenses are in preparation and will be submitted to the Congress in a few days. In the meantime members of my staff will be working with the staff of the Atomic Energy Commission for the purpose of planning the specific actions which should be taken as soon as the authorities in the new law can be utilized. In general the steps which will be taken as soon as the new authorities become effective are (1) the utilization of the liberalized mortgage insurance provided in the law to stimulate the production of the needed volume of permanent rental housing units at the two installations; and (2) the utilization of the authorities contained in title III of the law to assist the communities to expand their utilities and other facilities and for the construction by the Government of such temporary housing as may be needed and as the authorization provided by the Congress will permit.

If the authorities contained in the new law are adequately funded by the Congress, I believe it will be possible for this Agency and the Federal Security Agency to begin soon to provide adequate solutions to the pressing housing and related problems which now exist in Savannah and Paducah as a result of the activities of the Atomic Energy Commission. Please be assured of my full cooperation with both the Atomic Energy Commission and with your committee in this vital matter.

Sincerely yours,

RAYMOND M. FOLEY, *Administrator.*

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## MISCONDUCT AT SAVANNAH RIVER

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., February 23, 1951.*

Mr. WILLIAM BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: Reference is made to the request from Mr. Bergin of your staff for a list of individuals who were officially notified of the selection of our Savannah River plant site prior to public announcement on November 28, 1950.

As we informed you in our letter of November 28, 1950, many Government agencies participated with the Atomic Energy Commission and its contractor, the du Pont Co., in collecting data on the various sites considered throughout the country. As a consequence, many individuals within these agencies became aware of the various sites under consideration, both in the initial stage of

selection and in the final stages as additional data were requested on particular sites. All the individuals in the agencies contacted by the Atomic Energy Commission or its contractor were informed of the necessity for keeping the Commission's interest in particular sites a confidential matter. It can be presumed that this admonition was extended by the persons we contacted to their subordinates, insofar as was necessary. The agencies who rendered assistance along these lines are as follows:

1. Corps of Engineers:
   - (*a*) Office of Chief of Engineers
   - (*b*) Division and District Engineers
2. Department of Interior:
   - (*a*) Geological Survey
   - (*b*) Division of Water and Power
   - (*c*) Fish and Wildlife Service
3. Department of Commerce:
   - (*a*) United States Coast and Geodetic Survey
   - (*b*) Weather Bureau
4. Department of Labor
5. Federal Housing Administration
6. Military Liaison Committee
7. Department of Agriculture

Du Pont representatives also met with representatives of the Southeastern Power Administration, the State geologist of South Carolina, and representatives of the South Carolina Electric & Gas Co., with particular respect to the South Carolina location. However, during these meetings, we understand that du Pont's interest was represented as being in a plant of their own and no reference was made to the Commission's interest. During September of 1950 core borings were made on the South Carolina site under the auspices of the Corps of Engineers, South Atlantic Division, to ascertain subsoil conditions at the site. Again the Commission had requested that its interest in this endeavor not be made known.

On November 10, 1950, the assistant general manager of the explosives department in the du Pont organization specifically recommended the Savannah River site to the Director of Production by letter. On November 13, our Site Review Committee met with representatives of the du Pont Co. and discussed the characteristics of the new site and du Pont's recommendation of it. On the same day, November 13, the chairman of the Miiltary Liaison Committee was notified of the recommended site by letter.

On November 20 the Commission's Reactor Safeguard Committee met the du Pont representatives and discussed the characteristics of the proposed site. Also, on November 20, the Commission and some of the principal AEC Washington staff met with the Site Review Committee and discussed the Committee's recommendation of the site.

On November 22, the Commission met the representatives of the du Pont Co. in Washington and discussed du Pont's recommendation on site selection. The Commissioners indicated general acceptance of the recommendation; however, certain of the Commissioners indicated an interest in actually viewing the site before final action on the du Pont recommendation was taken. Accordingly, it was agreed that final Commission action would be deferred until November 27 following actual inspection of the site by Commissioners Smyth and Glennan.

On November 22 and 24, respectively, the Chief of Engineers and some of his assistants and an Assistant Secretary of Agriculture and a few of his assistants were advised of the fact that du Pont had recommended the Savannah River site and they were asked to make tentative plans for assisting the Commission and its contractor in the event the site was approved.

Although Commissioners Smyth and Glennan, together with the chairman and several other representatives of the Military Liaison Committee, visited the site on Sunday, November 26, on an inspection tour, it is not believed that this trip revealed any AEC interest in the site. The trip between Washington and the Augusta airport was made by Army plane and the tour of the site was made without ostentation in automobiles bearing ordinary license plates and driven by Atomic Energy Commission chauffeurs.

On November 27, the Commission met and formally approved the site selection. Up to this point the Commission and its contractor, du Pont, made every effort to keep information of the potential site selection confidential within their organizations and with respect to various people who had been contacted, and, who of necessity, obtained advance information on the probable location of the

new plant. Prior to announcement, a substantial number of du Pont employees, members of the Commission's Washington staff and the Commission's Savannah River Office had been involved in studying and evaluating recommended sites or in related work and were aware of the fact that the South Carolina location had finally been recommended.

Due to the considerable interest which this project had generated and the many inquiries the Commission had received regarding site selection, the Commission considered it appropriate to give advance notice to certain congressional and Government agency officials of the fact that the site selection would probably soon be announced. Between November 24 and 28, therefore, several Senators and Congressmen as well as the heads of several key Government agencies were advised of the du Pont recommendation; of the fact that final Commission action would probably be taken shortly; and that an early public announcement of the site selection would probably be made. In addition, on the morning of November 28, prior to the noon press release announcing the site selection, additional interested Government officials including members of the joint committee, the South Carolina congressional delegation, a portion of the Georgia congressional delegation, as well as heads of a number of Government agencies involved in the site selection who would be asked to participate in site problems, were informed by letter of the selection.

Meanwhile, beginning November 26, certain of the Commission officials who were to supervise the project locally, traveled to Augusta where they were housed in hotel accommodations which had been arranged for by the South Atlantic Division of the Corps of Engineers in order to avoid revealing their AEC identity. These AEC representatives advised certain local and state officials, including the Governors of South Carolina and Georgia of the selection of the South Carolina site approximately 2 hours before public release.

Copies of the official announcement also were delivered to the Senate and House post offices for distribution to all Members of Congress concurrently with the release of the public announcement to the press.

As can be seen by the above recitation, large numbers of persons were of necessity involved in the site selection activity which culminated in the selection of the Savannah River plant. Although the Commission made every effort to keep confidential its interest in the various sites considered, it was nevertheless inevitable, because of the necessity for collecting data and analyzing it, that large numbers of persons would become aware of the Commission's interests.

If any further information in connection with this site selection is desired, we will be happy to provide it.

Sincerely yours.

M. W. BOYER, *General Manager.*

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MARCH 8, 1951.

Memorandum for: Senator McMahon.
From: Bill Borden (staff director).

The AEC issued its announcement of the Savannah River site selection at about 12 noon on November 28.

That morning, before the announcement, Mrs. Florence B. Laird signed an option agreement with Walter B. Pace of Salt Lake City whereby the latter could purchase 19 acres of land on the outskirts of Aiken, S. C., for $30,000. Mrs. Laird was acting as agent for Mrs. Gladys Thayer, of Osterville, Mass., who had executed a power of attorney to the former for this purpose.

Around 10 or 11 o'clock, a friend called Mrs. Laird and advised her that some big news was afoot and that she should listen to her radio. Mrs. Laird declines to divulge the identity of the friend. She says she does not recall whether the telephone call came just before or just after she signed the option agreement. In any event, at the time of signing, she did not know about the AEC site selection. Following the telephone call, she turned to Mr. Pace and said, in effect, "It looks as though you've made a pile of money."

Pace subsequently resold the land to J. C. Long, a Charleston housing dealer, for $48,000—at a profit of $18,000. Preliminary arrangements for the option agreement had been made about a week or so prior to the site selection announcement.

The other transaction involving Pace had to do with an option agreement signed on January 23, 1951—almost 2 months subsequent to the site selection announcement. On this latter transaction, Pace made $57,600 in profit.

It does not appear that anyone else besides our man, Bill Bergin, has as yet talked to Mrs. Laird. I told Bill over the telephone that in view of the seriousness of his findings about the first Pace transaction, he should stay in South Carolina and make a detailed study of the land records.

W. L. B.

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MARCH 9, 1951.

Memorandum for: Senator McMahon.
From: Bill Borden.

The information I gave you last night about Walter B. Pace and Savannah River is wrong in this respect: The second transaction—the one in which the big $57,600 profit was made—also became firm, like the first transaction involving $18,000 profit, prior to the site selection announcement.

Bill Bergin tells me over the telephone that he had to tooth-comb the land records further than had been possible last night before he discovered that Pace's option to purchase in the second transaction was formally consummated on November 27, the day before the AEC's announcement.

Thus, Brother Pace may have made off with a total of $75,600 in windfall profits. There is some evidence vaguely suggesting that he may have served merely as an agent for an unknown principal although the transaction is entirely in his own name.

W. L. B

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MARCH 23, 1951.

Memorandum for the files.
From: William J. Bergin, joint committee staff.
Subject: Speculation, Savannah River area.

I arrived at Augusta, Ga., on March 8 about 2:30 p. m. and immediately proceeded to the Aiken County Court House in Aiken, S. C. I examined the land records for evidence of speculation premised on advance knowledge that the AEC would establish a site in the Savannah River area. I discovered there had been two options granted prior to the AEC announcement—November 28, 1950. Those options were as follows:

(1) Jesse W. Hammond, grantor, to Walter V. Pace, grantee; 72 acres for the agreed price of $14,400. Option granted November 27, 1950.

(2) Gladys B. Thayer, grantor, to Walter V. Pace, grantee; 19 acres for the agreed price of $30,000. Option granted November 28, 1950 (prior to the midday announcement by the AEC.)

Although the option granted by Gladys B. Thayer is dated November 28, 1950, there is no doubt but that all conditions concerning the option had been agreed to prior to November 28. This fact is substantiated by evidence of a recorded power of attorney which Gladys B. Thayer executed naming Mrs. Florence M. Laird, Aiken real-estate agent, her attorney in fact. The power of attorney was executed November 25, 1950, for the sole purpose of authorizing Florence Laird to sell the property mentioned above to Walter V. Pace.

On February 17, 1951, Walter V. Pace entered into two agreements for the sale of the above-mentioned option property to J. C. Long of Charleston, S. C. The 19 acres acquired from Gladys B. Thayer were sold for $48,000—a profit of $18,000. The 72 acres acquired from Jesse W. Hammond were sold to Long for $72,000—a profit of $57,600.

At the time that I arrived on the scene in Aiken, S. C., there were suspicions that Walter V. Pace had been given advance information which induced him to purchase the property described above. It had been impossible to uncover any factual data to support these suspicions. It was subsequently developed, however, that an AEC employee, W. Conrad McKelvay, had divulged information to Pace which led to the latter's purchase of the lands in question.

During my first day in Augusta, I had not contacted McKelvay who was housing officer for the Savannah River operations office. That night, however, I phoned McKelvay at his home (I knew him from a previous trip) to let him know that I was in the area. McKelvay was very abrupt in his conversation, and the results of the telephone call were not satisfactory. I later learned that the next day, March 9, McKelvay had invited Arthur Tackman, AEC Assistant in Charge, SROO, to his home for dinner. During that visit McKelvay told Tackman of his part in connection with the land speculation. I further learned that McKelvay was advised that the AEC would have to be told of his actions and

this was done the next day or the day following. The FBI was not brought into the case until March 10. It was not until March 12 that a public announcement was made about McKelvay. For that reason I feel that McKelvay confessed what he had done at least in part because of the joint committee's action in sending a staff member to the area. [The remainder of this memorandum, which consists of 63 pages, relates to other land transactions that, upon investigation, were shown not to have resulted in windfall profits by reason of advance knowledge as to the location of the plant.]

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*March 13, 1951.*

Mr. J. HOWARD MCGRATH,
*Attorney General, Department of Justice,*
*Washington, D. C.*

DEAR MR. MCGRATH: The purpose of this letter is to suggest and recommend that the Justice Department consider prosecuting Mr. W. Conrad McKelvay, recently employed in the Atomic Energy Commission, Savannah River office, and Mr. Walter V. Pace of Salt Lake City, Utah, for their profiteering activities in connection with lands adjacent to the new atomic energy site at Savannah River, S. C.

I know that I speak for all members of the Joint Committee on Atomic Energy in saying that we are distressed to learn of this breach of trust, the first of its kind since the Atomic Energy Commission assumed responsibility on January 1, 1947.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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OFFICE OF THE ATTORNEY GENERAL,
*Washington, D. C., March 17, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate, Washington, D. C.*

MY DEAR SENATOR: I have your letter of March 13, 1951, concerning the activities of Mr. W. Conrad McKelvay, recently employed in the Atomic Energy Commission, Savannah River office, and Mr. Walter V. Pace of Salt Lake City, Utah, in connection with the lands adjacent to the new atomic energy site at Savannah River, S. C.

You may be assured that this matter is receiving the thoughtful attention of the Department and is presently under active investigation by he Federal Bureau of Investigation.

Sincerely yours,

PEYTON FORD, *Acting Attorney General.*

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*June 20, 1951.*

Mr. J. HOWARD MCGRATH,
*Attorney General, Department of Justice,*
*Washington, D. C.*

DEAR MR. MCGRATH: On March 13, 1951, I wrote you "to suggest and recommend that the Justice Department consider prosecuting Mr. W. Conrad McKelvay, recently employed in the Atomic Energy Commission, Savannah River office, and Mr. Walter V. Pace, of Salt Lake City, Utah, for their profiteering activities in connection with lands adjacent to the new atomic energy site at Savannah River, S. C." Through Mr. Peyton Ford you kindly replied that "this matter is receiving the thoughtful attention of the Department and is presently under active investigation by the Federal Bureau of Investigation."

I have since been informed that Mr. McKelvay is involved in constructing a motel at Jackson, S. C.—a small town close to the Savannah River project area. There is no evidence before me showing that the funds for this motel venture

were *not* obtained through the activities referred to in my letter of March 13. As you know, I regret and deplore that episode because it is the only case known to me wherein an employee of the AEC has taken advantage of his official position to engage in an improper transaction.

Accordingly, I will very much appreciate your advising me the results of your investigation and particularly whether or not it is felt that either McKelvay or Pace violated a criminal statute such as would support prosecution by your Department. In the event it is not felt that any law was violated, I would appreciate a summary of the legal reasons supporting this conclusion.

I thank you very much indeed for your further assistance in this matter. I feel that the records of the Joint Committee on Atomic Energy must contain all the relevant facts concerning the possibility of prosecution.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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DEPARTMENT OF JUSTICE,
OFFICE OF THE DEPUTY ATTORNEY GENERAL,
*Washington, July 5, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate, Washington, D. C.*

MY DEAR SENATOR: Your letter of June 20, 1951, concerning the activities of Mr. W. Conrad McKelvay, formerly with the Atomic Energy Commission, and Mr. Walter V. Pace, of Salt Lake City, Utah, has been received.

Kindly be advised that the investigative reports concerning the above-mentioned persons and others are presently being analyzed with a view toward determining whether or not prosecution is warranted.

Yours sincerely,

PEYTON FORD, *Deputy Attorney General.*

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AUGUST 14, 1951.

Memorandum for the file.
From: William J. Bergin, Joint Committee Staff.
Re prosecution of Conrad McKelvay.

The Department of Justice has informed me that the matter concerning the prosecution of Conrad McKelvay, because of his part in the land speculation deal at Savannah River, is still in process. Recommendations have been made by Department attorneys but they have not yet reached the "front office."

I talked with Mr. Golden Dagger who told me that the entire matter has been reviewed and analyzed and that when completed this office will be informed as to the final disposition of the case.

W. J. B.

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OCTOBER 18, 1951.

Memorandum for the files.
From: William J. Bergin, Joint Committee Staff.
Subject: Justice Department activities re Conrad McKelvay

The Criminal Division of the Justice Department (Mr. Golden Dagger) reports via telephone that the Conrad McKelvay matter is still being studied to determine the possibility of prosecution for his part in the Savannah River land speculation.

A promise has been elicited from Mr. Dagger to keep this office posted.

W. J. B.

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NOVEMBER 15, 1951.

Memorandum for the files.
From: William J. Bergin, Joint Committee Staff.
Subject: McKelvay case.

I've been advised by Frank Walker, Department of Justice, that the Conrad McKelvay case (Savannah River land speculation) has been turned over to Mr. McInerney for final disposition. We will be notified of outcome.

W. J. B.

JANUARY 3, 1952.

Memorandum to the files.
From: William J. Bergin, Joint Committee Staff.
Subject: McKelvay case.

I've been advised by Robert Welch, Department of Justice (Code 197, extension 175) that the McKelvay case investigation is about completed. All that remains is to hear from the Atomic Energy Commission as to whether or not it has any rules and regulations which prohibit giving out information such as McKelvay did. The Department of Justice inquiry to the AEC is dated November 29, 1951. The AEC has not yet replied to the Department of Justice.

We will be informed when the matter has been completed.

W. J. B.

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(The Justice Department advised that it has thus far been unable to locate a statute which would support prosecution. The Department has been formally requested to draft language for statutory changes that would permit prosecution in future cases of a similar nature.)

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## A SAVANNAH RIVER CONTRACT PROBLEM

BROOKLYN, N. Y., *October 2, 1951.*

Hon. BRIEN MCMAHON,
*Senate Office Building,*
*Washington, D. C.*

MY DEAR SENATOR MCMAHON: The newspapers today reported that the Defense Department has urged the expenditure of $6,000,000,000 for expansion of atomic weapons.

I certainly am in favor of such expansion but have some misgivings as to how much will be wasted by collusive bidding on the part of contractors.

I have in mind one instance in connection with the hydrogen bomb plant at Dunbarton, S. C.

Voorhees, Walker, Foley & Smith (architects), 72 Wall Street, New York City, acting for E. I. du Pont de Nemours & Co. requested bids on furniture and fixtures. Bid opening August 6, 1951.

After having accepted the services of many dealers in office furniture, etc., in gathering data and making specifications they decided to limit the bidding to manufacturers only. The equipment was so varied that no one manufacturer could submit a complete bid on his own product.

However, the Globe-Wernicke Co. and one other manufacturer did submit complete bids.

Why! A certain William F. Wholey with friends in the offices of the architects and principal, rigged it so the dealers would be eliminated and Globe-Wernicke submitted a bid on their own and other manufacturers' products. The second bid was a phoney.

If the legitimate office equipment dealers in New York had been allowed to bid, the prices would have been at least 20 percent less than the ones received. I understand the total contract was approximately $250,000. The result was that Mr. Wholey who has his office in his hat was allowed to collect a substantial commission.

Other equipment will be needed for this project and I suppose we will see the same old "run around." What if the prices are high, the architect gets his fees and I suppose DuPont is on a cost-plus basis.

I gathered this information at an outing of the New York Office Furniture Dealers and I can assure you that if there is a repetition of this performance you will hear the howls in Washington.

My dear Senator, I believe this is worthy of some investigation as the legitimate dealers are certainly worthy of an opportunity to bid. They too must make a profit to stay in business and incidentally pay taxes.

Yours very truly,

J. G. CAIN.
[No street address.]

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*October 26, 1951.*

Mr. MARION W. BOYER,
*General Manager, United States Atomic Energy Commissions,*
*Washington, D. C.*

DEAR MR. BOYER: I am sending you a copy of a letter which has been received from Mr. J. C. Cain [his letter contains no address] alleging certain practices in connection with the letting of bids at Savannah.

It would be appreciated if you could look into this and prepare a report on the subject.

Sincerely yours,

HAROLD BERGMAN,
*Acting Director.*

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., November 13, 1951.*

Mr. HAROLD BERGMAN,
*Acting Director, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington, D. C.*

DEAR MR. BERGMAN: Receipt is acknowledged of your letter of October 26, 1951, with which you referred to the Commission a letter dated October 2, 1951, from Mr. J. G. Cain to Senator McMahon. This letter alleged unethical practices in connection with procurement of office furniture for the Commission's Savannah River plant. We referred the letter to Curtis A. Nelson, manager, Savannah River operations office for a report and have received his reply which we quote herewith:

"On July 26, 1951, invitations to bid were issued by Voorhees, Walker, Foley, and Smith, acting for du Pont, asking for bids on 48 different items of office furniture and equipment with an estimated value of $300,000. Due to the diversity of the items and the quantities involved, it was determined to be in the best interests of the Government to send the invitations to the leading manufacturers of office furniture rather than to dealers. Accordingly, bids were solicited from the following companies: The Globe-Wernicke Co., Yawman-Erbe Manufacturing Co., Art Metal Construction Co., General Fireproofing Co., Shaw-Walker Co. Upon receipt of the bids, it was noted that Globe-Wernicke were the only bidders submitting a complete bid and that their bid included some items manufactured by other companies.

"Bids on these items were reinvited on September 21 with quotations being requested from the manufacturers of these products. Bids received from these two invitations were then compared with Federal Supply Service prices. As a result of this comparison, the majority of the items are being procured through the Federal Supply Service. The items on which Globe-Wernicke bid, but which are manufactured by others and are not available from Government sources, are being procured directly from the manufacturers. Globe-Wernicke, whom we understand Mr. Wholey represented, has not received any business from these invitations.

"The Savannah River operations office was aware of and approved this method of procurement as being good practice and in the best interests of the Government as evidenced by a savings of approximately $88,000 over the amount bid by Globe-Wernicke."

We feel that Mr. Nelson's findings that the procurement in question was handled properly and in the best interests of the Government are correct.

If additional information on this matter should be required, we will be pleased to furnish it to the joint committee.

Yours very truly,

M. W. BOYER, *General Manager.*

## THE Du PONT OFFICE BUILDING

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., April 6, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy.*

DEAR SENATOR MCMAHON: This refers to your telephone call to me on April 4, 1951, at which time you requested information on the application to the National Production Authority by E. I. du Pont de Nemours & Co. for approval of the construction of a new office building and related facilities at Newark, Del.

The statements which follow have been obtained partially from the National Production Authority and partially from the du Pont Co. The application covered an office building, to be financed entirely by du Pont, to cost an estimated amount of $6,360,000, which included a boilerhouse, warehouse, and related services. The building will contain 200,000 square feet of usable space and will require from 12 to 14 months to complete. The building will house about 2,000 people, consisting almost entirely of du Pont engineering personnel.

The reason given for the necessity of construction at this time was that insufficient space was available in the Nemours and the du Pont Buildings at Wilmington.

Of the 2,000 people who will occupy the new building, it is estimated by du Pont that about 25 percent will be engaged in work for the Commission and that they will remain there for a period of about 4 years. It is further estimated by du Pont that about 400 to 500 people will have been brought into the du Pont organization at Wilmington because of the contract with the Commission.

The action sought by du Pont from NPA was specific authorization required under NPA order M-4 for the construction of an office building. Du Pont requested that we advise NPA of any AEC interest in the facility. Attached is a copy of a letter of March 8, 1951, from the deputy manager, Savannah River Operations Office, in response to the request.

We have been advised by the National Production Authority that approval was granted April 4, 1951, for the construction of this building, subject to the submission by du Pont of complete plans and specifications and to the understanding that no changes would be made in these plans and specifications without prior NPA approval. The approval further stated that it was the understanding that no special priorities assistance would be necessary.

Sincerely yours,

WALTER J. WILLIAMS,
*Deputy General Manager.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
OFFICE OF SAVANNAH RIVER OPERATIONS,
*March 8, 1951.*

Mr. RUFUS NEWMAN,
*Construction Control Division,*
*National Production Authority, Washington, D. C.*

DEAR MR. NEWMAN: The E. I. du Pont de Nemours & Co., Inc., has undertaken the design, construction, and operation for the Atomic Energy Commission, of new production facilities known as the Savannah River Operations. This project is vitally important to the defense and security of the United States.

In undertaking this contract, the du Pont Co. has been charged with the responsibility of furnishing in the shortest practicable time the labor, materials, tools, machinery, equipment, facilities, supplies, and services and all other things which, in their judgment, are necessary or desirable for the design, construction, and operation of the facilities mentioned above.

We understand that the du Pont Co. has filed an application (Case No. 3-217-B) to construct a new office building in Newark, Del. In this connection, we wish to state that in fulfilling their responsibility for this project, the du Pont Co. has been required to expand greatly their personnel and office facilities.

Very truly yours,

R. C. BLAIR, *Deputy Manager.*

## AN ARREST AT SAVANNAH RIVER

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., October 15, 1951.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington, D. C.*

DEAR MR. BORDEN: The Federal Bureau of Investigation has sent us an interim report on its investigation of Walter William Long, a former buyer for the du Pont Co. at the Savannah River project, whose arrest was reported in the papers a few weeks ago. The investigation had been made by the FBI at the request of the du Pont Co. who had detected some irregularities in Long's transactions after his dismissal from the project. The case also involves Long's wife and a Walter J. Golosky, both of whom were likewise arrested.

Long operated by awarding bids to companies which he or his associates controlled. The investigation thus far indicates that the sums involved were not substantial and that the loss to the Government may not be more than a few hundred dollars.

We will keep you advised of any important developments in this case.

Yours very truly,

M. W. BOYER, *General Manager.*

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## A BRIDGE ACROSS THE SAVANNAH

SEPTEMBER 27, 1951.

Memorandum for the file.
From: William Bergin and Walter Hamilton, Joint Committee Staff.
Subject: Bridge across Savannah River connecting plant area with Georgia.

In December 1950 the advisability of constructing a permanent bridge across the Savannah River connecting the Burke-Jackson-Screven Counties area with the South Carolina side for the purpose of tapping that area's labor force was considered. Three possible sites for such a bridge were considered satisfactory from the construction viewpoint. They are: (1) from Shell Bluff landing, Georgia, to Jackson, S. C., (2) from the south side of McBean Creek north of Shell Bluff landing to Jackson, S. C., and (3) from the north side of McBean Creek east of McBean, Ga., to Cathwood, S. C. In January 1951, it was decided that the third site mentioned above would be the most logical, due to the planning of proposed roads to the bridge approach on the Georgia site.

In February 1951 the chief highway commissioner of South Carolina, in a report on a survey of highway needs in the vicinity of the Savannah River plant, failed to mention such a bridge as being of importance to the area. At a meeting held in April 1951, attended by the Chief Engineer of the Bureau of Public Roads, B. P. McWhorter, and representatives of the Highway Commissions of South Carolina and Georgia, it developed that Georgia officials wanted certification of a bridge across the Savannah River. South Carolina officials wanted certification of a number of access roads on the South Carolina side but made no request for certification for a bridge. In a preliminary report forwarded to R. W. Cook, AEC, Washington, by C. A. Nelson, Savannah River operations office, April 12, 1951, outlining the results of a conference held on that date and attended by Bureau of Public Roads officials and du Pont and Savannah River operations officials, the following statement was made:

"It was decided that the time required to construct a bridge across the Savannah River between McBean and Silver Bluff would be beyond the peak load of construction, and therefore could not be justified as essential to the Savannah River plant from this standpoint. There is a strong possibility that this bridge is essential for military protection to expedite the movement of troops between the area and Camp Gordon. Informal discussions with Colonel Howe, commanding officer at Camp Gordon, indicates that he believes the bridge may be necessary, although he has not yet made a thorough study of the situation. Justification from this possibility would have to come from the Defense Department."

In the same report a recapitulation of work that would be recommended with an estimated cost as of that date showed that such a bridge would cost $1,760,000. A footnote to the estimate states: "Can be recommended as an access road only

upon military justification, although it would be highly desirable as (1) an alternate route from Augusta, and (2) as direct access for workmen from the Waynesboro area in Georgia."

It is understood that the defense authorities have failed to justify a bridge across the Savannah River as for their benefit, and although it is not a matter of record, it is understood that they feel they can get troops to the site almost as quickly by using the present roads system and military police control of Augusta traffic.

Du Pont officials still feel that some means of crossing the Savannah River is highly desirable in order to tap the labor market of approximately 3,600 persons in the three nearby counties of Georgia. The proposed ferry system has been ruled out as being inefficient. A pontoon bridge has also been studied, but the Corps of Engineers has stated that such a bridge would require a swinging gate manned by six men, on three shifts, in order to keep the river open for any traffic going to or from Augusta.

Du Pont's average cost per employee for recruitment is approximately $50. This may provide a yardstick for the measurement of the relative values of the bridge proposal. Assuming recruitment costs do not rise, it would be possible therefore for du Pont to obtain an equivalent labor force to that which the bridge would make available at a cost of approximately $180,000 if a bridge is not constructed.

Du Pont officials feel that even if a simply designed, permanent-type structure were begun now it could not be completed in time enough to help them meet their manpower requirements before peak construction is reached a year from now. AEC officials believe such a bridge is desirable, but not essential from the project standpoint, though from an over-all standpoint it would be useful in channeling the flow of workers to and from the plant without passing through heavy city traffic.

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## THE FRUITLESS TELEGRAMS

[On October 20, 1951, Representative Hamilton C. Jones forwarded to the joint committee a complaint from a small supply company in North Carolina. The complaint referred to a number of lengthy telegrams which the company had received from du Pont at Savannah River, soliciting bids on a long list of items none of which the company itself manufactured or could hope to supply. The complaint went on to state that similar telegrams had been received by other small companies in North Carolina and that these suppliers also had no facilities whatever for making any of the items on which bids were invited. Why, it was asked, need Federal funds be expended to pay for telegrams that could not possibly serve a useful purpose?]

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*October 24, 1951.*

Hon. HAMILTON C. JONES,
*House Office Building, Washington, D. C.*

DEAR MR. JONES: In response to your request I have attempted to obtain the facts behind the situation described by [Mr. X—name withheld] of the [name of company and the place of its location in North Carolina withheld] in his letter to you of October 17.

The Atomic Energy Commission requested the du Pont Corp. at the beginning of the Savannah River project, to obtain as large a portion of necessary supplies as possible through normal channels rather than through the establishment of fabrication facilities for this specific job. The AEC request applied particularly to the fabrication of reinforcing steel. The request was made because of protests entered by suppliers and fabricators located in the region who feared that central fabrication by du Pont might deprive them of business to which they felt they were entitled and might also soak up steel allocations for that region.

The particular action of du Pont, referred to by [Mr. X] and involving items which could not be fabricated in small central shops either by du Pont or by

regional fabricators and suppliers, is according to the Commission, outside the intention of its request. The action in question is said to be attributable to the pressure of the du Pont construction schedule, which results in attempts to locate every possible piece of material needed to keep the job moving at maximum speed. I am also informed that the telegrams are in part a response to the protests entered by regional suppliers and reflect du Pont's efforts both to procure from such suppliers to the maximum extent feasible and to demonstrate, through the procurement invitations, that regional firms are being given every opportunity to participate.

As a result of the inquiry initiated by you, the Atomic Energy Commission has assured me that it is taking action to review emergency procurement measures now in use by du Pont and to modify these measures to the extent necessary.

Sincerely yours,

WILLIAM L. BORDEN, *Executive Director.*

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UNITED STATES ATOMIC ENERGY COMMISSION

SAVANNAH RIVER OPERATIONS OFFICE

AUGUSTA, GA.

Information for the Press (No. 29).
For release in morning newspapers of Friday, September 21, 1951.
For release at 7 p. m. Thursday, September 20, 1951.

The Atomic Energy Commission said today that a recapitulation of contract awards by the du Pont Co. from February through July 1951 for the AEC's Savannah River plant development reveals that of a total of 10,376 awards, 7,675 went to small-business firms. Small business is defined as businesses employing 500 or less persons, and not a subsidiary of a firm classed as large business.

The 10,376 contract awards totaled $124,323,242.43. The 7,675 awards to small-business groups amounted to $32,223,666.84 or 26 percent of the total.

As of June 15, the AEC said that 5,124 contract awards large and small had been made in the southeast section of the United States. Of this total 87.8 percent went to small business.

The figures relating to small business do not include contracts entered into with small businesses by so-called large business firms who have been awarded contracts by du Pont for Savannah river plant work.

The breakdown from February through July follows:

*Small business*

| Month | Number | Total value |
|---|---|---|
| February and March | 1,314 | $9,632,316.50 |
| April | 1,378 | 3,965,078.03 |
| May | 1,552 | 4,217,111.87 |
| June | 1,775 | 9,650,076.53 |
| July | 1,656 | 4,759,083.91 |
| Total | 7,675 | 32,223,666.84 |

*Business other than small*

| Month | Number | Total value |
|---|---|---|
| February and March | 449 | $19,329,232.68 |
| April | 504 | 6,134,052.84 |
| May | 515 | 6,781,275.25 |
| June | 533 | 18,182,860.69 |
| July | 673 | 41,589,319.09 |
| Total | 2,674 | 92,016,740.55 |

*Education and other nonprofit institutions*

| Month | Number | Total value |
|---|---|---|
| February and March | None | |
| April | 6 | $2,205.54 |
| May | 14 | 71,802.19 |
| June | 2 | 3,866.14 |
| July | 5 | 4,641.17 |
| Total | 27 | 82,515.04 |

*Total all classes*

| Month | Number | Total value |
|---|---|---|
| February and March | 1,763 | $28,961,549.18 |
| April | 1,888 | 10,101,656.41 |
| May | 2,081 | 11,070,189.31 |
| June | 2,310 | 27,836,803.36 |
| July | 2,334 | 46,353,044.17 |
| Total | 10,376 | 124,323,242.43 |

## A RESETTLEMENT PROPOSAL

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., January 19, 1951.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: This will acknowledge your letter of January 3, enclosing a letter from Mr. [name withheld] concerning the possible use of farm land in the Davy Crockett National Forest in Houston County, Tex.

We have forwarded a copy of Mr. [name withheld] letter to the Farmers Home Administration, Department of Agriculture, who is assisting the Commission in giving help to relocate the people being evacuated from the South Carolina plant site.

Enclosed is a copy of our letter to the Department of Agriculture, as well as a copy of our reply to Mr. [name withheld].

Yours sincerely,

M. W. BOYER, *General Manager.*

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UNITED STATES DEPARTMENT OF AGRICULTURE,
FARMERS HOME ADMINISTRATION,
*Washington, D. C., February 1, 1951.*

HON. BRIEN MCMAHON,
*United States Senate.*

DEAR SENATOR MCMAHON: The Atomic Energy Commission has referred to the Farmers Home Administration a copy of the letter from Mr. [name withheld], Texas, regarding the use of the Davy Crockett National Forest in Houston County, Tex., for farmers being evacuated from the Commission's Savannah River site in South Carolina.

The farm land being purchased for the Atomic Energy Commission's plant site in Barnwell and Aiken counties, S. C., is rather thinly populated. It has been estimated that there are approximately 1,400 families in the area, the greater number of the families being located in Ellington. The area has been rearranged so as to leave Jackson and Snelling on the outside of the boundary. Many of the families have already arranged to locate in nearby communities. The information available at this time indicates that there would not be any number of families that would desire to locate any great distance from their present location. Since this is true and there is a shortage of farm labor in that part of South Carolina, it appears that farm families will be afforded available

land in that area for their needs. Even if the Davy Crockett National Forest land were available, we do not believe there would be sufficient families desiring to locate there from South Carolina to make the venture a profitable one for the families being displaced.

We appreciate your interest and if we can supply any further information, please let us know.

Sincerely yours,

DILLARD B. LASSETER, *Administrator.*

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OCTOBER 8, 1951.

## AN OFFICIAL STATEMENT ON SAVANNAH RIVER

STATEMENT OF SENATOR BRIEN MCMAHON AND REPRESENTATIVE CARL T. DURHAM, CHAIRMAN AND VICE CHAIRMAN RESPECTIVELY OF THE JOINT COMMITTEE ON ATOMIC ENERGY

We have recently reviewed the investigatory reports that are in our possession concerning the construction work being done for the Atomic Energy Commission at Savannah River by the du Pont Co. and at Paducah, Ky., by the F. H. McGraw Co.

These two projects have been under constant investigation by the staff of the Joint Committee on Atomic Energy. This committee is required by law to be kept fully and currently informed and to make constant studies and inquiries into atomic energy work. The committee is in effect a continuous investigative group, and it possesses comprehensive information on Paducah and Savannah River.

We think it is our duty to comment on the situation at Savannah River, S. C., where an immense and vital atomic facility is being constructed.

First of all, we want to call attention to the fact that the contractor in charge of this project is one of the distinguished industrial institutions of our country, the du Pont Co. The public should know, if it does not already know, that du Pont did not seek out this heavy assignment. On the contrary, it was a case of the Government's going to du Pont and saying in effect "you built the great Hanford plutonium works during the war—we need your help to build another plant right now for the defense of the United States." du Pont agreed to take up the challenge, out of a sense of patriotic duty. The fee which it receives for doing this job—which is deeply involved in the survival of the entire free world—is exactly $1 per year.

We have heard allegations that the job at Savannah River is not going well, that the men are loafing, and that there is waste and inefficiency.

We want to state that we have personally followed this situation through many months, indeed from the beginning of the Savannah River effort. The Joint Committee on Atomic Energy has had representatives on the scene so frequently that our inspections and checks have been almost on an uninterrupted basis. We have been fully briefed by committee representatives just returned from Savannah River.

Based upon this information, which has been the very opposite of a casual or limited inquiry, we are satisfied the du Pont project is going forward at the top speed which our Government requested and ordered. We are satisfied that the project is proceeding on schedule. Furthermore, the schedule itself is probably the tightest and toughest, in terms of the speed required, that has ever been established in the peacetime history of the United States.

The second point we want to make is that the allegations of loafing and soldiering on the job are without real foundation. It is true that some employees of lump-sum subcontractors—that is subcontractors whose own money and not the Government's money is on the line—have been the subject of critical comment. It is true that, due to the extraordinarily tight sechedules and the overwhelming demand for speed, the contractors in the area have been required to staff up rapidly. When speed in the defense of the Nation is an overriding requirement, it is not always possible to dot every "i" and cross every "t" so as to satisfy every critic and particularly the critic who is not aware of all the factors involved.

To cite one example, it was necessary in a few cases to place new foremen on the job after only 2 weeks of training, whereas the normal industrial practice—where speed is not a vital factor—is to require 6 weeks of training. To cite another example, du Pont has already fired 715 employees for failure to

measure up to the high standard of performance required. If speed were not essential, du Pont would have had time to evaluate the records of these people more carefully and to have avoided hiring them in the first place.

But close and detailed examination of the productivity per worker at Savannah River shows that the job being done compares favorably with other big projects undertaken by any other top-flight company in the United States.

Furthermore, it so happens that the standards and practices of employment prevailing at Savannah River are equal or superior to the standards and practices being maintained by six major defense construction contractors in the Savannah River area. We refer to Clark Hill Dam and Camp Gordon. In other words, for reasons which we cannot personally penetrate, du Pont has been singled out for publicity and unjustified censure, and six other contractors in the very same area—also doing defense work—are overlooked even though their collective standards and practices fall short of du Pont's.

We do not say that, in isolated instances, there is no cause for critical judgment. As a matter of fact, in several such instances, the joint committee has already made known its concern both to du Pont and to the Atomic Energy Commission—and necessary corrective action has been taken.

The big thing is to get this job done and get it done just as fast as possible. We are fearful that too much investigating will interfere with that objective and will therefore impair the security of the United States. Today du Pont is doing the job and doing it as it must be done.

The situation at Paducah is somewhat similar, except that this vital new facility has been beset with work stoppages. Not all is perfect—far from it. Again here the joint committee has called attention to matters which could be improved and has taken care to see that the necessary corrective steps be taken.

But at Paducah, as at Savannah River, the job is going forward, and the project today is on schedule. Too much time out for investigations could interfere with finishing on time.

The joint committee will continue to scrutinize these two facilities on a regular and uninterrupted basis, as it has done in the past.

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## A LETTER ON PRIORITIES

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*November 30, 1951.*

Mr. CHARLES E. WILSON,
*Director of Office of Defense Mobilization,*
*The White House.*

DEAR MR. WILSON: Several weeks ago I visited the Savannah River atomic project and learned that there is a definite threat of failing to meet construction schedules because of inability to secure the necessary materials in time. Since then (having returned from a trip to Europe) I've had further reports on this materials-priorities problem, and it is my understanding that, although Mr. Fleischmann has brought about improvements within the framework of the existing priorities system—improvements for which all concerned are thankful—the situation remains critical.

I just want to point out the obvious; namely, that every day and week and month of delay in meeting the established construction schedule means that the United States will lose a day or week or month of the atomic production which otherwise would have ensued—because, as of any given date in the future, the weapons stockpile will not contain the bombs that could have been made but were not made due to delay in starting up operation of the Savannah River plants.

I, therefore, want to urge most strongly and most earnestly that *nothing* be allowed to stand in the way of getting to Savannah River the materials necessary to finish those plants just as rapidly as humanly possible. I think you'll agree with me that none of the officials concerned—and here I definitely include the members of the Joint Committee on Atomic Energy—could forgive themselves if, through human failure, the Savannah River establishment is not completed on time.

I know you will appreciate the sincere and heartfelt conviction which underlies this letter.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

94564—52——5

(The information developed following dispatch of the above letter is classified, but the priorities problem at Savannah River is being closely and continually followed by the joint committee.)

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## THE AUTHORITY OF THE AEC FIELD MANAGER

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., November 24, 1950.*

Mr. HAROLD BERGMAN,
*Acting Director, Joint Committee on Atomic Energy.*

DEAR MR. BERGMAN: With reference to your letter of November 17, 1950, attached is a copy of the delegation of authority to the manager, new operations.

You will note that the delegation is from the Director of Production rather than the General Manager, being within the responsibility previously delegated to the Director of Production.

Very truly yours,

COLLINS,
For M. W. BOYER, *General Manager.*

(One enclosure.)

OFFICE MEMORANDUM—UNITED STATES GOVERNMENT

Date: August 4, 1950.

To: Curtis A. Nelson, Manager, New Operations Office.
From: Walter J. Williams, Director of Production.
Subject: Delegation of authority.

1. *Primary functions.*—The new operations office, under the direction of a manager of operations, responsible to the Director of Producton, is assigned the primary functions of:

(*a*) Production of fissionable materials.

(*b*) Production of certain special materials and fabricated items.

2. *Associated functions* assigned to the new operations office are:

(*a*) Development work associated with production of fissionable materials, special materials, and fabricated items.

(*b*) Engineering and construction operations associated with assigned functions.

3. *Special functions.*—The new operations office is assigned the special function of the administration of other programs or contracts as may be established by the Washington office and assigned to the new operations office.

4. *Delegation of authority.*—The manager, new operations, is authorized and directed to take such action, including the maintenance of the basic fiscal, legal, personnel, security, and administrative services, as is necessary, to the performance of the functions assigned above, within the general limitations prescribed in this memorandum and applicable GM bulletins. Specifically, he is authorized to:

(*a*) *Make and administer contracts*

(1) Make purchases; enter into, extend, and modify contracts; approve subcontracts and extensions or modifications of subcontracts; approve purchases by contractors and subcontractors; except that each purchase, contract, subcontract, extension, or modification in excess of $5,000,000 shall be subject to the approval of the Director of Production. Such authority, within the discretion of the Manager, may be delegated in writing, without power of further redelegation, to such assistants as may be necessary except that authority shall not be delegated to make or approve any purchase, or enter into, extend, modify, or approve any contract or subcontract in amounts in excess of $100,000. The manager, new operations, should bring to the attention of the Director of Production for prior consideration all new or unusual types of contractual transactions.

(2) Act as a representative of the Commission for the administration of contracts executed under his authority or assigned for administration to the new operations office. Such authority, within the discretion of the Manager, may be delegated in writing, with power of further redelegation to such assistants as may be necessary.

*(b) Supervise direct activities*

Coordinate and supervise the direct AEC activities at the principal site of the new operations office and such other locations as may be utilized for the conduct of the program, or designated from time to time. With respect to assigned functions, the manager, new operations, is responsible for assisting the responsible program directors in the preparation of budgets and the supervision of expenditures made under approved programs.

The full authority above or any part thereof may be redelegated, in writing, to any employee designated by the Manager as Deputy Manager.

5. *Relationships with other officials.*—In performing the functions assigned and exercising the authority delegated to him, the manager, new operations, is responsible that instructions he may issue are properly coordinated with divisions and offices having a joint interest, recognizing the responsibilities of all division directors and managers of operations, and the delegations of authority to them. Problems or questions involving the jurisdiction of Washington program directors other than the Director of Production which cannot be resolved by direct negotiation between the Manager and the director concerned shall be referred to the Director of Production. Direct communication with all divisions in Washington on matters pertaining to the assigned functions of such divisions is authorized and encouraged. The Manager is responsible that any action he may take falls within established policies of the AEC; he will make recommendations to the Director of Production, as appropriate, when in his judgment existing AEC policies are inadequate to the purpose at hand. The manager, new operations, shall take special notice of all matters under his cognizance which may be of interest to the Director of Military Application, and he shall see that such matters are brought to the attention of the Director of Military Application.

WALTER J. WILLIAMS,
*Director of Production.*

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## CHARGES OF WASTE AT OAK RIDGE

The problem discussed in the following letters was reviewed in several conferences with Commission personnel and a complete memorandum is in the joint committee's classified files. The case arose when letter complaints were received to the effect that expensive and useless equipment had been purchased for a facility at Oak Ridge.

OAK RIDGE, TENN., *May 8, 1951.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington, D. C.*

DEAR MR. BORDEN: Reference is made to your letter, dated April 24, 1951, relative to the procurement and use of certain machine tools by the Y–12 operations of this office.

The questions raised have been thoroughly investigated by this office in conjunction with Carbide & Carbon Chemicals Co., a division of the Union Carbide & Carbon Corp., which operates the Y–12 plant under contract with the AEC.

As the programs requiring the procurement and use of these machines are broad in scope and involve other Commission-operations offices reply to your inquiry is being made through the Washington office of the Commission.

The detailed data developed by this office is being forwarded this date to the Director of the Division of Production, Washington, D. C.

Sincerely yours,

S. R. SAPIRIE,
*Manager, Oak Ridge Operations.*

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*June 5, 1951.*

Congressman CARL T. DURHAM,
*House Office Building, Washington, D. C.*

DEAR MR. DURHAM: Attached hereto is a correspondence file which you forwarded sometime ago, the contents of which have been investigated by the staff.

The gist of the allegations is that the Atomic Energy Commission, at Oak Ridge, has in the past procured about $140,000 worth of machine tools, which proved to be incapable of doing the work for which they were purchased.

The Atomic Energy Commission has replied with a complete classified report. Its findings are, briefly, that the tools were purchased for a specific need, but in one instance the program involved has been held up, and in the other case the design of the product has been changed. In every case the machine tools are being utilized, or are being held ready in the event the program is reactivated.

The Atomic Energy Commission feels that the writer of these letters is not able to learn what happens in other areas, where security regulations prevent his access, hence he has acquired only part of the story. It is true the tools did not do the work in his department, but they are performing or standing by in another.

We feel, however, in retrospect, that the Commission might have gotten along quite well without one of the machine tools. Full details as set forth in the Commission's classified letter can be made available to you anytime you wish.

If there is anything more we can do on this matter, please let us know.

Sincerely yours,

WILLIAM L. BORDEN, *Executive Director.*

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## OAK RIDGE CONTRACT COSTS

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., February 28, 1950.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

(Attention: Mr. Harold Bergman.)

DEAR MR. BORDEN: Mr. Bergman, of your staff, recently requested a breakdown of the K–29 and K–31 contract costs. In accordance with this request, we are enclosing herewith two statements showing the participation of various contractors and subcontractors in the K–29 and K–31 plants at Oak Ridge.

The attached K–31 breakdown contains a different figure for competitive procurement than was shown in our letter to Senator McMahon of February 15. We have pointed out this change in another letter to Senator McMahon from Sumner T. Pike, acting chairman, of this same date.

Sincerely yours,

CARLETON SHUGG, *Deputy General Manager.*

*Oak Ridge Operations—Breakdown of cost for participating contractors, K–29 plant*

| Contractor | Total cost participation | Competitive bid, purchase orders, and subcontracts | Remaining costs of reimbursable contractors |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| Maxon Construction Co.: | | | |
| Direct operation | $11,552,771 | $3,500,000 | $8,052,771 |
| Kaignin & Hughes, Inc. (subcontract) | 13,715,111 | 5,000,000 | 8,715,111 |
| Edenfield Electric Co. (subcontract) | 6,983,345 | 4,000,000 | 2,983,345 |
| Lump-sum construction (subcontract) | 800,000 | 800,000 | 0 |
| Total, Maxon Construction Co. | 33,051,227 | 13,300,000 | 19,751,227 |
| Carbide & Carbon Chemicals Corp. | 31,512,923 | 19,100,000 | 12,412,923 |
| Giffels & Vallet, Inc. | 1,750,238 | 0 | 1,750,238 |
| Sargent & Lundy | 100,000 | 0 | 100,000 |
| Atomic Energy Commission project engineer office | 235,000 | 0 | 235,000 |
| Total | [1] 66,649,388 | 32,400,000 | [1] 34,249,388 |

[1] The above includes fixed fees.

## TWO OAK RIDGE PERSONNEL PROBLEMS

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., April 20, 1951.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*United States Capitol,*

DEAR MR. BORDEN: This confirms our telephone conversation of April 16 concerning Mr. Fred W. Hilker, a former employee of the Maxon Construction Co., a contractor of the Atomic Energy Commission at Oak Ridge, Tenn. Our Oak Ridge office has made a thorough inquiry into Mr. Hilker's employment status and has furnished us a report of which the following is a summary.

Commission contractors at Oak Ridge have, in general and over a long period, followed the practice of obtaining clearance from the employer involved before making an offer to an employee of another contractor. On February 17, 1951, Mr. Hilker, who was in charge of construction of one of the K–31 buildings for the Maxon Co., traveled to Paducah, Ky., and applied to the F. H. McGraw Co., the Commission's construction contractor at Paducah, for employment indicating that the Maxon Co. no longer had need of his services. The McGraw Co. accepted Mr. Hilker's statement of availability and offered him a job at a higher salary than he was earning with Maxon.

When Mr. Hilker returned to Oak Ridge and notified his employer of the McGraw Co. offer, the Maxon Co. felt that the offer should have been officially cleared with them and they thereupon registered a complaint with the AEC manager at Oak Ridge. The manager relayed this complaint to the McGraw Co. stating that Maxon had further need of Mr. Hilker's services and also had plans for assigning Mr. Hilker to its permanent key personnel group. On learning these facts the McGraw Co. withdrew the offer of employment which had been made to Mr. Hilker.

As to the circumstances of Mr. Hilker's presumed availability from his position with the Maxon Co., it is reported that Maxon was proposing to reassign him to supervise another construction project in the vicinity of Dayton, Ohio, and had established March 26 as the tentative date on which Mr. Hilker could be released from the K–31 project and would be expected to take charge of the construction at Dayton. It is understood that Mr. Hilker made a trip to Dayton and looked over the work there, but did not call at the Maxon office; and on returning to Oak Ridge wrote a letter to Mr. Lawrence Ohl, vice president of the Maxon Co., indicating that he was not interested in the Dayton assignment, and then resigned. Following his resignation from his position with Maxon at Oak Ridge, it is understood that Mr. Hilker made another visit to the McGraw office at Paducah, and was offered employment by the McGraw Co. on two other projects than the project at Paducah.

Mr. R. H. McCulloch of the AEC Oak Ridge Office of Production and Engineering had endeavored to make it clear to Mr. Hilker that he had in no sense been "blacklisted" on AEC projects. As a matter of record, Mr. McCulloch on March 9, 1951, advised Mr. K. A. Dunbar, AEC area manager at Paducah, that Mr. Hilker had resigned from the Maxon organization, was a valuable man and was available to the McGraw Co. However, the McGraw Co. by that time had already employed a former McGraw superintendent to fill the position which they had offered to Mr. Hilker on February 17.

On March 26, Mr. Hilker joined a construction organization, headed by Mr. Carl S. Helrich, which is performing essential construction work on a lump sum contract in the Y–12 area of Oak Ridge. If you desire further information regarding any of the circumstances outlined above, please let us know, and we will endeavor to supply it.

Sincerely yours,

OSCAR SMITH,
*Deputy Director, Organization and Personnel.*

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*June 20, 1949.*

Mr. FELLA H. HOLBROOK,
*104 West Tennessee Avenue,*
*Oak Ridge, Tenn.*

DEAR MR. HOLBROOK: Senator McMahon has referred your recent telegrams to me for reply. Due to the length of the record involved in your case and the heavy press of work in connection with the current joint committee investigation of the Atomic Energy Commission, I have not been able to respond as quickly as I would have preferred; and I want to apologize for the delay.

After weighing the facts and consulting with other committee staff members, I regret to say that I cannot conscientiously recommend to the chairman that the committee itself review your case. My reasons are as follows:

The committee is now deeply engaged in business of national importance. Even if it were to review your case, it has no legal power—in the event that it agreed with your contentions—to require the Commission to reinstate you. Through its staff, moreover, the committee has already given your case careful attention. Staff members have followed the case closely for many months; I have conversed with you personally on two occasions; numerous inquiries have been made to the Commission; and the committee staff may have been instrumental in expediting the final decision rendered by the Commission's General Manager.

Apart from these factors, you have been accorded all the rights due you under the civil service laws, including appeal to the Civil Service Commission. The manager of Oak Ridge operations has personally and extensively reviewed the case. The General Manager has likewise reviewed your situation, assisted by a three-man committee appointed from among the Commission's Washington personnel.

Considering the exhaustive procedure which has been followed and considering the multiple opportunities afforded you to plead your case, I can only conclude that you have received the administrative equivalent of due process of law. Furthermore, the Commission's decision has evidence to support it and is certainly not capricious or clearly erroneous. Under the circumstances, I think it would be anomalous for a congressional committee—whose main interest is broad policy—to concern itself with this particular case to the extent of holding hearings. Your recourse, if any, seems to lie with the Civil Service Commission and with the courts. These, in contrast to the legislative branch of Government, are organizationally equipped to evaluate individual grievances.

I am sorry to feel compelled to write this letter, but I very much hope you will appreciate the reasons which dictate my conclusion.

Sincerely yours,

WILLIAM L. BORDEN,
*Executive Director.*

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## OAK RIDGE BUS FARES

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*July 5, 1950.*

Mr. J. D. EILER,
*President, Atomic Trades and Labor Council,*
*Oak Ridge, Tenn.*

DEAR MR. EILER: This is in reference to your letter of June 12, 1950, to Senator Hickenlooper regarding changes in bus services and fares at Oak Ridge put into effect on June 5. The Senator referred your letter to the Joint Committee on Atomic Energy for reply.

According to information furnished by the Atomic Energy Commission, the fare and route changes which were effected on June 5 were made in the interest of economy. They will serve to reduce the subsidy which the United States Government annually pays for the operation of the Oak Ridge bus system. The American Industrial Transit, Inc., operates under a fixed-fee contract and will gain nothing from the rate increases and service changes.

The zone system established at Oak Ridge on June 5 is considered by the Commission to be comparable to commuter service in effect in most cities where

travel outside the city limits requires the payment of an additional fare. The 20 new 27-passenger busses, which were put into operation at Oak Ridge on June 5, are expected to result in greater economy of operation. The replacement of the old busses which have been in operation since the end of the war will continue through the fiscal year 1951.

The sharp reduction in passenger loads on express runs is cited by the Atomic Energy Commission as the reason for discontinuance of such service. A study of transportation service to the plant areas in effect prior to recent schedule changes developed the following facts: Busses traveling 8 routes to the plant areas made 442 trips per day. Mileage for these routes totaled 4,223 per day. The average number of passengers per bus trip was 17. Capacity of the busses in operation at the time was 37. The cost of transporting a passenger to the plant area was 46.5 cents.

It is necessary for the AIT to operate four times as many busses during rush hours as during the rest of the day. In a normal city, according to the Commission, the increase in busses required during peak-load hours is seldom more than twice the normal-hours requirement. In addition, there, is no turn-over of passengers during the plant runs, and the low density of population along the routes serve to increase costs.

Bus operating costs at Oak Ridge are said to be comparable with the per-mile costs of similar operations elsewhere. However, the revenues per mile have been, and will continue to be, below those received by other bus systems. On July 1, 1948, when bus fares were increased to 10 cents cash, the number of passengers decreased 19.7 percent. A like decrease is expected as a result of the June 5, 1950, fare increase.

The total estimated cost for operation of the Oak Ridge bus system during fiscal year 1950 is $1,233,299. The total estimated revenue for the same period is $439,050, and the net estimated subsidy which must be paid by the Federal Government is $794,729. In fiscal year 1951 the estimates are: Total cost, $1,071,355; total revenue, $454,982; and net subsidy (or loss), $616,373. Plant runs account for 70.2 percent of the total operating expenses. City transportation accounts for the balance, or 29.8 percent, of total costs.

Thank you for contacting the committee.

Sincerely yours,

WILLIAM L. BORDEN,
*Executive Director.*

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## RACE RELATIONS AT HANFORD

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
*Washington, D. C., April 24, 1950.*

Mr. WILLIAM BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Capitol Building, Washington, D. C.*

DEAR BILL: I am enclosing self-explanatory correspondence from the Seattle Urban League.

As you will note, they have made the suggestion that the Commission employ a specially qualified person as a member of the staff at the Hanford plant to specialize in race relations problems. I believe precedent has been established for such a policy by the Public Housing Administration, among other Federal agencies.

I will appreciate it if you will take up with the Commission the possibility of the same being done at the Hanford plant and let me know their reaction.

Best regards.

Sincerely yours,

HENRY M. JACKSON, M. C.

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*May 2, 1950.*

Representative HENRY M. JACKSON,
*House Office Building, Washington, D. C.*

DEAR MR. JACKSON: As you requested, we have inquired into the AEC's policy on race relations problems and its attitude on the possibility of appointing a special-

ist in this field to serve at Richland. The present status of the racial problem in the so-called tri-city area is as follows:

1. *Kennewick.*—Kennewick has a city ordinance prohibiting Negroes from staying within the town boundaries after sundown. Therefore, no Negroes live in Kennewick but they may shop and go to restaurants and theaters during the day.

2. *Pasco.*—Some Negroes live in Pasco and attend the Pasco school but local custom interferes with their shopping, entering theaters, and patronizing restaurants there. Apparently local feeling exists to the effect that although they live in Pasco, they should shop and attend theaters and restaurants in Kennewick.

3. *Richland.*—No Negroes live in Richland. It appears that the Manhattan District had a policy of not hiring Negroes in connection with operating the plants and this reason, as well as the housing shortage and the customs of the surrounding area, is said to account for the absence of Negroes in Richland.

4. *North Richland.*—The construction camp known as North Richland includes some Negroes who live in a segregated area. Apparently this segregation arose during the war and there are no formal AEC rules or regulations governing the matter.

Prof. Joseph Lohman of Chicago University, chairman of the Illinois State Board of Correction, adviser to the Secretary of Interior, and a recognized expert in the field of racial relations, was recently asked by the Commission to visit each atomic energy installation and to counsel and advise with both community officers and contractors. Mr. Edwin Felker of the AEC Washington Personnel staff (an assistant to Mr. Fletcher Waller, Director of Organization and Personnel) accompanied Professor Lohman throughout the entire series of visits and they both recommended that plans for improving race relations be based upon influence, example, and education rather than upon more radical measures. After Professor Lohman and Mr. Felker visited Hanford in January 1950, the names of some Negroes have been submitted to the FBI for investigation and one has been cleared for work as a messenger with the prospect of becoming a clerk. This individual evidently lives in Pasco.

All AEC contracts contain fair employment-practice provisions in accordance with Presidential Executive Order 9346, as amended on May 27, 1943. In accordance with the provisions of a further Executive Order 9980, the Commission has appointed Mr. Fletcher Waller as fair employment officer for the AEC. Each manager and deputy manager of the operations offices has been designated as deputy fair employment officer; thus, Mr. Fred Schlemmer and Mr. David Shaw, manager and deputy manager of the Hanford operations office are deputy fair employment officers for the Hanford area. They have the benefit of advice and counsel from their local personnel officers.

The Commission appears to feel that these officials and their counterparts at the other installations constitute adequate machinery for meeting the problem, that they are actively and sincerely working to improve the situation, and that the appointment of a specialist is not indicated at the present time. Mr. Waller advises that acts of discrimination are alleged to have taken place but that to date, neither he nor the Hanford office has been able to secure particulars or to discover any specific and concrete instances. Mr. Waller stated that if anyone has information on this score, he and the people at Hanford would welcome particulars so that appropriate action could be taken.

The AEC personnel whom we contacted in response to your inquiry represent that they are sincerely concerned about the problem, that they regard it as important, and that they are striving to the best of their ability to eliminate it.

Sincerely yours,

WILLIAM L. BORDEN, *Executive Director.*

P. S.—You no doubt recall that section 5 (g) of the Fair Employment Practices Act, as passed by the House, exempts the AEC from the effect of the act's provisions.

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SEATTLE CHAPTER, AMERICAN CIVIL LIBERTIES UNION,
*Seattle 2, Wash., August 29, 1950.*

Mr. WILLIAM BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Washington, D. C.*

DEAR MR. BORDEN: This communication is somewhat garbled, yet I hope you can put the pieces together.

I, as a representative of the Seattle chapter of the American Civil Liberties Union, recently wrote to the city clerk of the city of Kennewick to inquire if they had any ordinances prohibiting Negroes in the city after nightfall or any ordinances prohibiting Negroes from owning any property in the city.

I received a reply from Marjorie A. Miller, city clerk of the city of Kennewick, denying that any such ordinances were in effect.

I communicated this information to Warren Morgans, attorney here in the Public Housing Administration, and he directed my attention to a letter from you to Representative Henry M. Jackson of the Joint Committee on Atomic Energy. This letter was dated May 2, 1950, and I understand that the letter indicates that your investigation, or the investigation of your committee, indicated that the city of Kennewick does have a city ordinance preventing Negroes from staying in the city after sundown.

I am writing to you to determine if such were the contents of your letter of May 2, 1950, to Henry Jackson, and, if that be so, if you could shed any light on this apparent discrepancy.

I thank you for your interest and cooperation in this matter.

Yours very truly,

KENNETH A. MACDONALD,
*Executive Secretary.*

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*September 21, 1950.*

Mr. KENNETH A. MACDONALD,
*Executive Secretary, American Civil Liberties Union,*
*Seattle 2, Wash.*

DEAR MR. MACDONALD: Replying to your letter of August 29, 1950, regarding the alleged ordinance in the city of Kennewick, I find that I have indeed been misinformed—and I appreciate your calling this matter to our attention.

* * * Apparently both Washington and Hanford officials have accepted as law that which is only local custom. The Commission secured its information from Kennewick residents, who seemed firm in their belief that an ordinance barring Negroes from the town after sundown actually existed—even to the point of referring to the "sundown ordinance." * * *

I am sorry the misinformation was contained in my letter. * * * and again thanks to you for stimulating me to get the true facts. * * *

Sincerely yours,

WILLIAM L. BORDEN, *Executive Director.*

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## HANFORD TRUCK PURCHASES

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*April 5, 1951.*

Mr. GORDON DEAN,
*Chairman, Atomic Energy Commission, Washington 25, D.C.*

DEAR MR. DEAN: The press today carries a story to the effect that the Atomic Energy Commission purchased trucks for the Hanford project which had been owned by the Government and had been sold as surplus for a sum much less than the Commission paid for them.

Please give me the facts on this matter.

Very truly yours,

BRIEN MCMAHON, *Chairman.*

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., April 5, 1951.*

DEAR SENATOR MCMAHON: We are in receipt of your letter requesting the facts concerning the purchase by the AEC, in the spring of 1948, of a number of trucks for use of our Hanford Operations Office. The facts are as follows:

In the construction program at the Hanford Operations Office during 1948 and 1949 there developed urgent requirements, in order to meet extremely tight construction schedules, for a large number of heavy-duty dump trucks and transit mix trucks.

On February 10, 1948, the General Electric Co., the Commission's contractor, requested that the Hanford Operations Office procure the following: 175, 4- to 5-ton, dump trucks for immediate delivery and 75 additional for delivery in 1949; 125 transit mix trucks and an additional 50 for 1949 delivery.

On April 9, 1948, these requirements, because of increasing pressure to get the construction project well under way, were stepped up to: 306 dump trucks for immediate delivery and 75 additional for 1949 delivery; 125 transit mix trucks for immediate delivery with 120 additional for 1949.

The Hanford Operations Office contacted all customary sources and had been able to secure only 99 heavy-duty dump trucks and 68 transit mix trucks. None of the remaining requirements could be supplied by any Government agency including the military. Delivery through standard commercial sources could not be made in time to meet Hanford Operations Office delivery requirements.

On April 13, 1948, William J. Morrell, Chief of the AEC Supply Branch, received a telephone call from Schnitzer Bros., Inc., of Portland, Oreg., offering for sale certain heavy construction equipment which they had obtained as war surplus in the Philippines and stating that they knew where there were available 400 Diamond T dump trucks and 169 White and Corbett trucks, 6-ton, 6 by 6 chassis. Schnitzer Bros. wrote on April 24, 1948, informing AEC that these trucks were in the possession of Green Bros. in Los Angeles who had agreed to hold them for AEC but that it would be necessary to move fast as the demand for the equipment was very great since the removal of the resale prohibition in this country. AEC wired Schnitzer on April 26, 1948, agreeing to take the trucks subject to inspection. The Federal Bureau of Supply was immediately contacted to determine whether they would buy the trucks for AEC. FBS decided that AEC should handle the negotiations direct with the supplier. An AEC representative then went to Los Angeles and negotiated with Green Bros. for $3,400 each for the heavy-duty dump trucks and $3,900 each for the White trucks. The General Electric Co. sent a shop superintendent and five truck mechanics to inspect the trucks. A thorough test was made by driving each vehicle and 208 were approved for immediate shipment. The balance of 150 trucks were inspected by the Corps of Engineers, Los Angeles district.

A total of 358 trucks were purchased from Green Bros. There were 208 heavy duty Diamond-T, 6 by 6, 4- to 5-ton, 4 cubic yard dump trucks at $3,400 each, and 150 White, Model 666, 6 by 6, United States Army type heavy-duty trucks at $3,900 each. The total cost of the 358 trucks was $1,292,200.

Prior to negotiating with Green Bros. a quotation was requested on 100 White trucks of a similar capacity to those procured as indicated above. Gale Bros. of Yakima, Wash., local distributors of White trucks, quoted $8,510.39 each, f. o. b. Richland, Wash., with deliveries to start 6 weeks from date of award and eight units per week thereafter. The Bureau of Yards and Docks shipped us 80, 4- to 5-ton heavy-duty Diamond-T trucks at a cost of $7,010.79 each, f. o. b. Richland, Wash.

A comparison of prices as set forth below indicates that the purchase of these trucks from the Green Bros. resulted in a net saving of approximately $1,000,000 in addition to securing delivery at a time when delivery was critical to the Hanford construction program.

*Diamond-T, 4 to 5 tons*

| | | | |
|---|---|---|---|
| Navy (80 secured from them) | $6,300.00 | Green Bros | $3,400.00 |
| Freight | 710.79 | Freight | 356.69 |
| Total | 7,010.79 | Total | 4,056.69 |
| | | Saving per truck | 2,954.10 |
| | | Saving on 208 trucks | 614,452.80 |

*White, 6-ton, 6 by 6*

| | | | |
|---|---|---|---|
| Gale Bros., Yakima, Wash | $8,510.59 | Saving per truck | $3,953.90 |
| | | Saving on 150 trucks | 593,085.00 |
| Green Bros | 3,900.00 | Total saving | 1,207,537.80 |
| Freight | 356.69 | | |
| Repair | 300.00 | | |
| Total | 4,556.69 | | |

In the selection of vehicles, it was understood that some repair work would have to be done by Hanford before they could be put into operation. This repair was needed primarily because a considerable length of time had expired since the trucks had last been used. The estimated repairs at the time of purchase was $300 per vehicle. An actual report on the cost of such repair revealed that the average expenditure was $228.29 per truck before they were placed in service.

Morris Green, president, Green Bros., in a letter dated May 1, 1948, addressed to the Atomic Energy Commission, Richland, Wash., stated that: "Trucks were purchased by the firm from the Philippine Government, and we were permitted to sell the same under Order No. FLC, regulation 8, order 6, issued on page 2262, part 8508, as published in the United States Federal Register, dated April 27, 1948." An examination of the Federal Register, as of the date mentioned, verifies this statement. Representatives of the AEC did not participate in securing the issuance of this order.

After these trucks had been delivered, but prior to payment therefor, a question arose as a result of a complaint filed by the administratrix of the estate of one Joseph Freeman, alleging that Mr. Freeman was a partner of Green Bros., concerning the sufficiency of the vendors' title. Payment for the trucks was withheld pending investigation of certain facts relating to the complaint by the assistant general counsel of Hanford Operations Office, who concluded that the existence of such a partnership if proved, would not affect AEC making payment to Green Bros. To furnish additional protection to the Government, however, the following were obtained by Hanford Operations Office from Green Bros.:

1. Bond in the amount of $150,000, conditioned against loss to the Government arising out of any defect in Green Bros.' title, or arising out of interference in our title to these trucks. The surety on this bond is the Continental Casualty Co., an approved surety, and the amount thereof is equal to the amount of Freeman's claim.

2. Indemnity agreement executed by Green Bros. Enterprises, Inc., and by all the stockholders thereof and their wives, indemnifying the Government in the full amount of any loss arising out of this purchase. This indemnity agreement contains certain warranties and representations which had been sworn to by the parties.

The vouchers were then approved for payment. The General Accounting Office is developing certain information for the use of the Bonner subcommittee, and we have forwarded to that office photostatic copies of the contract, modifications thereto, and payment vouchers relating to the contract.

I trust that this furnishes you with the information you desire.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

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## HANFORD LABOR POLICY

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*May 7, 1951.*

MR. MARION BOYER,
*General Manager, Atomic Energy Commission,*
*1901 Constitution Avenue, Washington, D. C.*

DEAR MR. BOYER: A member of this committee has received the attached "observations" from the Hanford Atomic Metals Trades Council on General Electric Co.'s attitude toward organized labor and collective bargaining.

As you will note, two references are made to AEC: One, on its labor specialists at Hanford, and the other, to refusal to grant access to restricted areas for nonemployee union officials.

I would appreciate receiving any comment which the AEC would care to make on this situation.

Sincerely yours,

HAROLD BERGMAN,
*Acting Executive Director.*

Enclosure.

OBSERVATIONS OF HANFORD ATOMIC METALS TRADES COUNCIL

Accordingly, the council presents herewith its general impressions regarding the matter.

The first observation which the council has to make is fundamental, i. e., the General Electric Co., AEC's prime contractor at Hanford, has never demonstrated genuine acceptance of collective bargaining as a normal and desirable process. Thus, it is that the company often refuses to accept council conclusions concerning a given condition of employment as final. Rather, the company frequently attempts to go over the head of the union so as to appeal to employees individually. This is not to be understood as a council complaint that the company does not always agree with the unions as to working conditions at Hanford. It is meant to be a statement of the council's disapproval of the company's refusal to genuinely and consistently recognize it as the sole and exclusive bargaining agent for some 3,200 Hanford workers.

Tactics of the type condemned were much in evidence during the council's attempt to gain a satisfactory wage adjustment for its people late in 1950. During such period the company, at Government expense, mounted a large scale publicity campaign including full page advertisements and radio programs in support of a proposed wage increase which the council had rejected as inadequate. The fact of the council's dissatisfaction with the offer proves nothing since it is not the exclusive author of wages at Hanford. However, it is strongly believed by union people here that any persuasion by the company toward acceptance of its views on the matter should have been directed at the labor organizations and not at individual employees and the general public. The latter were not proper parties to the discussions according to the accepted rationale giving rise to Federal encouragement of collective bargaining.

The council is not alone in drawing attention to General Electric's failure to follow the presently prevailing view that collective bargaining and the things it produces are good for our Nation. The following remarks appeared on page 33 of the April 3 issue of The Reporter, national news magazine:

"Labor believes that American industry is divided into two camps—one including General Motors, that wants to keep peace with labor and get on with production; the other, with General Electric as ringleader, that wants to wipe out the accepted collective bargaining practices of the last decade. Among the damning evidence labor has assembled are two newsletters that the corporation has circulated among its executives.

"In letters dated February 12 and 19, 1951, the company made a series of suggestions, which if put into effect would wipe out some of labor's most important gains since 1933. The letters say that there is 'only one way' to settle the problem of escalator clauses, namely, 'by ruling (them) out'; that pension and insurance programs are 'troublesome'; that the Walsh-Healey and Bacon-Davis Acts which require minimum wage standards for all Government work 'are no longer necessary in the slightest'; that payment of time and one-half for overtime presents 'an inflation and taxation difficulty'; that there should be disciplinary penalties against workers for 'sporadic interruptions to defense or civilian production.' The appointment of labor officials to Government posts is opposed because, in view of their 'lifelong career' of interfering with production, they are not 'very useful * * * in the general art of increasing it.'"

It is clear that General Electric has the legal right to take the above-described positions and carry out labor policy accordingly. It is equally clear that labor at Hanford and at other General Electric installations will bitterly resent the situation. In such an atmosphere industrial relations can hardly be exemplary. It is impossible for a labor organization to think in terms of long-range cooperation with a management which consistently evidences its opinions that the union is a cross to bear rather than its partner in production. That is to say, unions preoccupied with organizational survival in the face of management opposition cannot be expected to pour oil on troubled waters in the interests of industrial harmony. Until the company gives concrete assurance that it regards the unions at Hanford as its mediums of communication with employees and that it has no desire to alter such an arrangement, the labor relations atmosphere here will continue to be unhealthy and not conducive to the mutual understanding and good will between employer and the employed which is necessary to a well-adjusted industrial operation.

The council would also like to voice its opinion as to the role of AEC's labor specialists at Hanford. As the council understands it, such people are to expe-

dite the production of the plutonium by helping to establish a harmonious management-labor relationship at the project. However, they are to be "neutral" observers so far as routine disputes between the company and the unions are concerned and thus it is altogether improper for them to cooperate with one party to the exclusion of the other. In the council's opinion this precept is not followed at Hanford. As it appears to the council, AEC and General Electric are frequently in league to promote policies established by the company and opposed by organized labor. This is not to say that AEC directly and openly intervenes in Hanford labor matters nor is the observation made without recognition of the necessity of close cooperation between AEC and its prime contractor. However, anyone familiar with the union situation at this installation must be of the opinion that the Commission's labor people get their information from the company because they almost never communicate with the labor organizations. In other words, it is the council's conviction that the Government cannot gain the true picture of labor relations at Hanford if the views of organized labor are not within the knowledge of its agents. It would appear that promotion of good industrial relations cannot be served by those who have such a limited awareness of possible trouble spots inherent in a given situation. While this complaint is not considered of the highest importance, it also indicates the view that unions here are not considered truly important to the job at hand.

Another point the unions often discuss has to do with admission of union business agents to the barricaded areas. As matters now stand, the company and AEC have refused to clear nonemployee union officers for admission to the production areas. This is often a severe handicap in the bargaining process. It is true that union stewards are present on the job, but stewards are primarily employees, and secondarily union agents. The company frequently sends its union relations personnel into the field to look into a particular problem although its supervision, like stewards, is in a position to report on the matter without special assistance. Perhaps the insinuation posed by the barring of union leaders from the restricted area to the effect that such people are not to be trusted causes a good share of the resentment resulting from such exclusion. This also indicates to the unions that they are considered stepchildren by the powers that be at this installation. In any event the barrier imposed between union people and their representatives is a sore spot indeed. Its removal would go a considerable way toward bettering management-union relations at Hanford.

In summary, the council feels very strongly that a basic recommendation of President's Commission on Labor Relations in the Atomic Energy Installations is not being followed at Hanford due General Electric's disagreement therewith. Such recommendation reads as follows:

"That in all Government-owned, privately operated atomic energy installations in which representatives have been chosen by the workers and lawfully designated, or recognized by management, management and union cooperate to integrate the union into the plant organization as a two-way channel of communication and a medium of understanding between management and workers." (4, e, of the Commission's Report.)

The above remarks represent the council's basic observations as to the Hanford labor scene. A number of ills stem from the deficiencies described. The council holds no hope for their immediate resolution due to General Electric's publicly announced policy against collective bargaining as the term is commonly understood. This is not to say that the unions are unable to represent their people at Hanford. Federal law guarantees that they will not be ignored. However, bargaining takes place in an atmosphere of suspicion, tension, etc. Clearly this situation is not good particularly in an atomic-energy installation. However, it will prevail so long as General Electric persists in regarding labor organizations as necessary evils rather than essential elements of industrial accomplishment.

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., June 12, 1951.*

MR. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: This is in reply to Mr. Bergman's letter of May 7, attaching a copy of a communication from Hanford Atomic Metal Trades Council received by a member of the joint committee.

The observations in the letter are generally critical of practices of both the General Electric Co. and the Atomic Energy Commission in the area of labor-management relations. We believe that our comments should be limited to those portions of the observations which go to AEC's role in labor-management relationships, since it would appear to be beyond the scope of your request to review the contractor's labor policies.

On the second page of the communication quoted, the writer expresses a general opinion that AEC's labor staff at Hanford maintains a close liaison with contractor representatives but almost never communicates with the labor organizations; this to the detriment of good industrial relations. This kind of criticism has been troublesome to the AEC in the past. We believe it results to a great extent from the kind of management relationship between AEC and its contractors. The contract between AEC and the General Electric Co. at Hanford calls for contractor operation of Government-owned facilities. AEC supervision of the operation creates a relationship which does not have a parallel in AEC's contacts with the organizations of the company's employees. The Commission's stated labor policy is to keep Government supervision and the resulting effect on free collective bargaining to the minimum consistent with a full discharge of its over-all program responsibilities. Among these responsibilities is the review of labor expenditure by the General Electric Co. While the company and the union jointly determine wages and other working conditions for employees within the bargaining unit, it is the contractor who is responsible directly to AEC. This makes it difficult for the AEC staff to have the same relationship with the unions as with the company.

There are other contractual requirements which necessitate communication between Government labor specialists and contractor representatives. These include obligations of General Electric Co. to AEC pursuant to applicable Federal labor statutes.

One of the major AEC responsibilities in the area of labor-management relations is to assure continuity of operations. In order to carry out this responsibility, it is necessary to keep informed of facts which might jeopardize continuation of production. It is provided in the primary contract between General Electric Co. and AEC that "whenever an actual or potential labor dispute is delaying or threatens to delay the timely performance of the contract, the contractor will immediately give notice thereof to the contracting officer. Such notice should include all relevant information with respect to such dispute." In conformance with these contractual provisions, the General Electric Co. furnishes complete current information pertainng to such disputes to the Commission. Although no similar obligation exists with respect to Hanford Atomic Metal Trades Council, AEC is interested in such information from labor organizations as will enable our staff to gain full perspective of a labor dispute.

The union's observations also refer to an alleged company and AEC refusal to clear nonemployee union officials for admission to production areas and a resulting imposed barrier between union people and their representatives.

Security requirements of the program have posed some unusual problems in the area of collective bargaining. It is not possible to provide the kind of freedom of plant access sometimes found in other industries.

The policy of the Hanford operations office has been to control the issuance of permanent identification passes to employees regularly assigned to the Hanword works. Visitors are normally accompanied by an appropriate escort. The Commission has recently codified its policy in respect to clearance of union representatives. This codification of policy is contained in a new bulletin on security polices as they affect collective bargaining. A copy of this bulletin is enclosed. Your attention is invited to paragraph 5. We believe that the bulletin will be helpful in alleviating any inhibitions to collective bargaining which may have existed by reason of security restrictions.

Sincerely yours,

WALTER J. WILLIAMS,
For M. W. BOYER,
*General Manager.*

U. S. ATOMIC ENERGY COMMISSION

Bulletin
GM-187 [1]

SECURITY POLICIES AFFECTING COLLECTIVE BARGAINING

SECURITY POLICIES AND PRACTICES IN THE AREA OF LABOR RELATIONS

For: Principal Staff, Washington Managers of Operations
Ref: AEC Staff Papers 411, 411/1

1. *Purpose.*—The purpose of this bulletin is to codify AEC security policies in the area of labor-management relations, and to provide for coordination and uniformity of the policies and practices that appear most appropriate in the light of experience.

2. *General Policy Objectives in the Areas of Labor-Management Relations.*—Established policy objectives of the Atomic Energy Commission [2] in respect to labor relations are:

(*a*) Wholehearted acceptance by contractors and by labor and its representatives of the moral responsibility inherent in participation in the atomic energy program;

(*b*) Development of procedures to assure (1) that all participants in the program are loyal to the United States including those whose participation involves the exercise of negotiating and disciplinary authority over bargaining units, and (2) that determination of unit, jurisdiction, and similar questions will not breach security;

(*c*) Continuity of production at vital AEC installations;

(*d*) Consistent with the Commission's responsibility under the law, the least possible governmental interference with the efficient management expected from the AEC contractors;

(*e*) Minimum interference with the traditional rights and privileges of American labor.

On all matters of security at all Government-owned, privately operated atomic energy installations, the Atomic Energy Commission retains absolute and final authority, and neither the security rules nor their administration are matters for collective bargaining between management and labor. Insofar as AEC security regulations affect the collective bargaining process, the security policies and regulations will be made known to both parties. To the fullest extent feasible the Commission will consult with representatives of management and labor in formulating security rules and regulations that affect the collective bargaining process.

3. *Policies and Procedures in regard to NLRB Proceedings.*—AEC policy regarding the processing of National Labor Relations Board cases at atomic energy installations (against the background of the initial NLRB proceedings at Oak Ridge authorized by the Secretary of War on a trial basis in March 1946) was set forth in a letter dated September 27, 1948, from the Atomic Energy Commission to the National Labor Relations Board.[3] This letter withdrew the Commission's earlier request that NLRB refrain from affirmative action in cases involving atomic energy projects; advised NLRB that the Commission fully approved the principle of Board proceedings at its installations in cases falling within the scope of the Labor Management Relations Act; requested that NLRB clear each case as it arose with local AEC representatives in order that security considerations might be carefully reviewed; and expressed the Commission's hope that conditions would eventually allow the same freedom of procedures that exists in other industries. The letter also stated the "settled policy" of the Atomic Energy Commission "that the atomic energy facilities be operated in a manner best calculated to assure that those who participate in the program are loyal to the United States, including those who, though not employees of contractors, exercise administrative, negotiating and disciplinary authority over such employees of contractors as are members of union bargaining units."

(*a*) *Normal Processing of Cases.*—Based on the above, and on experience with NLRB proceedings since September 1948, it is the policy of the Commission that

[1] Issuance Date: May 8, 1951.
[2] "Report on Labor Problems Relating to Continuity of Production in the AEC Program" submitted to the Joint Congressional Committee on Atomic Energy, January 16, 1948.
[3] This letter is reproduced in Appendix 9 of the Fifth Semiannual Report, issued January 1949.

NLRB cases falling within the scope of the Labor-Management Relations Act at the various atomic energy installations should be conducted in normal fashion wherever possible, on the basis of open hearings, unclassified records and published decisions. This policy does not preclude adoption of special arrangements which may be required for reasons of program security at any stage of the proceedings in particular areas.

(*b*) *Consent Elections.*—In accordance with the recommendation of the President's Commission on Labor Relations in the Atomic Energy Installations, it is the policy of the Commission to encourage every effort by management and labor at atomic energy installations to determine bargaining units and representatives by agreement and consent elections in preference to contested proceedings before the National Labor Relations Board.

(*c*) *Panel of Cleared NLRB Trial Examiners.*—By agreement with the National Labor Relations Board, a panel of cleared NLRB trial examiners is maintained to facilitate resolution of questions as to the materiality of classified information in NLRB hearings, and to facilitate preparation of an unclassified record. All necessary arrangements with the National Labor Relations Board for the maintenance of this panel will be made by the AEC labor relations staff in Washington. The assignment of individual trial examiners to atomic energy cases remains a matter within the discreton of the National Labor Relations Board.

(*d*) *Clearance of counsel.*—It is recognized that clearance of counsel for the parties is sometimes desirable for proper preparation of a case even though the record is to be unclassified. Clearance of counsel makes possible their participation in any closed discussions needed preparatory to making an unclassified record. Each party is responsible for requesting clearance of its counsel well in advance so that clearance requirements will not delay the proceeding. The clearances of temporary special counsel will be terminated on completion of the proceeding. The local AEC personnel office will notify the security office of the date the proceeding is completed.

(*e*) *Clearance of national union representatives.*—It appears desirable that a limited number of cleared union representatives be available for consultation in the event of a special emergency. Since any such emergency would be handled at the national level, a limited number of national representatives (to be determined by AEC staff after consultation with the national federations) may be cleared for each national federation active in the representation of employees on classified atomic energy work. Arrangements preliminary to the clearance of such representatives will be handled by Washington staff.

(*f*) *AEC's role in proceedings.*—If controversies within the scope of the Labor Management Relations Act arise which cannot be adjusted by mutual agreement, and contested proceedings before NLRB result, each party to such proceedings will present his own position and the evidence in support thereof with due regard for existing security rules. AEC will be continuously informed of the progress of such proceedings and will act as may appear desirable (1) to assure the protection of classified information; (2) to assure that material and relevant information is not withheld from the record on grounds of security if such information can be supplied in unclassified form; and (3) to assist in determining appropriate action where a decision may turn on data which can be expressed only in classified form.

4. *Certification of Representative*—(*a*) *Security proviso.*—The National Labor Relations Board has adopted the following proviso in certifications of representatives for workers at atomic energy installations: "This certification is conditioned upon compliance, by the certified union, with the security requirements of the Atomic Energy Commission, a matter exclusively within the jurisdiction of of that Commission." A list of the installations where this proviso is to be included in certifications of representatives will be furnished to the NLRB and kept up to date by the AEC Washington Office.

(*b*) *Loyalty of Participants.*—Loyalty to the United States is a paramount factor applicable to all participants in the atomic energy program including those whose participation (although not requiring access to restricted data) involves the exercise of administrative, negotiating and disciplinary authority over bargaining units composed of employees engaged on classified work. Any question as to the participation of a particular union as the representative of employees engaged on classified work should be referred to Washington staff, which will initiate any steps necessary to resolution of the question by the Atomic Energy Commission.

5. *Contract Negotiation and Administration—(a) Clearance of certain local union representatives.*—It is recognized that security clearance of certain union representatives may be necessary to assure opportunity for effective representation of employees in collective bargaining relationships with AEC contractors. Accordingly, AEC managers may authorize investigation for "Q" clearance of union officials whose functions as representatives of employees may reasonably be expected to require access to restricted data (1) under NLRB and other procedures according to applicable law (LMRA, 1947); (2) to effectively perform their representation functions in the resolution of grievances and in other collective bargaining relationships with contractors; (3) to effectuate the recommendation of the President's Commission in respect to integration of the union into the plant organization "as a two-way channel of communication and a medium of understanding between management and workers."

In the precontract stage of union-management relations, the requirements of the Labor Management Relations Act normally will be the applicable criteria for determining which bargaining representatives, if any, will need access to classified material in the exercise of their functions as employee representatives. Responsibility for compliance with the Labor Management Relations Act in this respect rests with the contractor.

After a bargaining relationship has been established between the contractor and the representatives of its employees, the nature of this relationship and the procedures followed in it normally will be the controlling criteria for determination of the access to be granted to particular persons in carrying out their functions as employee representatives. For example, many contract grievance procedures designate by title certain union and management officials who are to have definite roles in the resolution of grievances under the procedure. Investigation for "Q" clearance will normally be in order for such officials, both company and union, employee and nonemployee. In addition, persons not so designated may be investigated for clearance where the company and the union advise the AEC manager that their established relationships contemplate access for such persons.

Requests for investigation for clearance of nonemployee representatives will be subject to AEC approval in the same manner as other requests involving persons for whom access is desired. Arrangements may be made for the nonemployee representatives to submit their personnel security questionnaires direct to AEC rather than through the contractor.

*(b) AEC Security Interest in Other Representatives.*—Full background investigations will not be requested for union officials for whom access is not required under the criteria set forth in paragraph a. above. If such persons are of security interest to AEC because of proximity or because they exercise negotiating and disciplinary authority over employees, Managers of Operations may request checks concerning them through the AEC Division of Security in Washington. If derogatory information reflecting upon loyalty or associations concerning any of these individuals is developed through these checks or through other sources a report should be forwarded to the Director of Security in Washington together with the recommendation of the Manager. If the Director of Security, Washington, determines that the reported derogatory information is sufficient to raise a question as to whether such union officials should be permitted to continue to exercise negotiating and disciplinary authority over the employees concerned, efforts will be made to verify the reported information and the Commission will afford the individual concerned an opportunity to explore the question and may take such further steps as appear appropriate in the circumstances.

*(c) Clearance of FM & CS Representatives and of Arbitrators.*—It is recognized that it may be desirable to provide for the "Q" clearance of some conciliators of the Federal Mediation and Conciliation Service and of some arbitrators engaged on cases at the larger atomic energy installations. The purpose of such clearance is to make possible a better orientation for these persons and thereby better equip them for handling specific disputes. A top official of FM & CS, who is responsible for coordinating conciliators working on atomic energy cases, possesses a "Q" clearance at the present time. Additional conciliators and arbitrators who are regularly assigned to atomic energy cases may be processed for "Q" clearance at the discretion of the local AEC manager, either on the manager's initiative or at the request of a contractor.

94564—52——6

(A few current labor agreements have carried over a clause from the original Oak Ridge contracts providing that in cases involving classified information the arbitrator will be selected by the government agency having jurisdiction over the project. Where practicable, the parties to such agreements should be requested to negotiate amendments to the agreements providing for selection of arbitrators by the parties themselves or by the Federal Mediation and Conciliation Service, or by some other procedure not involving direct participation by the AEC.)

6. *Security Indoctrination of Nonemployee Representatives.*—Each AEC office should take steps to assure that adequate security indoctrination and training is being given to all collective bargaining representatives, both company and union, who are to have access to restricted data.

M. W. BOYER, *General Manager.*

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[Beginning July 1, 1949, the Atomic Energy Commission has been required by law to file so-called overrun notices with the joint committee. The law reads thus:

"That no part of this appropriation or contract authorization shall be used—

"(A) to start any new construction project for which an estimate was not included in the budget for the current fiscal year;

"(B) to start any new construction project the currently estimated cost of which exceeds the estimated cost included therefor in such budget; or

"(C) to continue any community facility construction project whenever the currently estimates cost thereof exceeds the estimated cost included therefor in such budget;

unless the Director of the Bureau of the Budget specifically approves the start of such construction project or its continuation and a detailed explanation thereof is submitted forthwith by the Director to the Appropriations Committees of the Senate and the House of Representatives and the Joint Committee on Atomic Energy; the limitations contained in this proviso shall not apply to any construction project the total estimated cost of which does not exceed $500,000; and, as used herein, the term 'construction project' includes the purchase, alteration, or improvement of buildings, and the term 'budget' includes the detailed justification supporting the budget estimates: *Provided further*, That whenever the current estimate to complete any construction project (except community facilities) exceeds by 15 per centum the estimated cost included therefor in such budget or the estimated cost of a construction project covered by clause (A) of the foregoing proviso which has been approved by the Director, the Commission shall forthwith submit a detailed explanation thereof to the Director of the Bureau of the Budget and the Committees on Appropriations of the Senate and of the House of Representatives and the Joint Committee on Atomic Energy: *Provided further*, That the two foregoing provisos shall have no application with respect to technical and production facilities (1) if the Commission certifies to the Director of the Bureau of the Budget that immediate construction or immediate continuation of construction is necessary to the national defense and security, and (2) if the Director agrees that such certification is justified."

During the period July 1, 1949, through December 31, 1951 (2½ fiscal years) the AEC filed 60 overrun notices having to do with projects which cost more than originally estimated. The aggregate construction cost of all 60 projects was $164,000,000, of which $50,000,000 consisted in overruns. Of this $50,000,000, some $16,026,000 is attributable to one case, namely, the 234–5 plutonium fabrication facility at Hanford. Total AEC construction of new plant during the 2½ fiscal years in question (fiscal 1950, fiscal 1951, and the first half of fiscal 1952) amounted to about $1,160,000,000. Thus the amount of those overruns required by law to be filed with the joint committee aggregated about 4.3 percent of total construction during the period. The AEC filed, in addition, 17 notices of new projects involving $23,000,000 not included in the budget estimates considered by Congress. The following are three overrun notices selected at random from the joint committee's unclassified files.]

## OVERRUN NOTICES

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., January 6, 1950.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy.*

DEAR SENATOR MCMAHON: On November 30, 1949, there were transmitted to you copies of the justification for a construction project at Hanford, Wash., known as the over-all plant telephone project, Docket No. D–50–10, on which project the current estimate was in excess of the 1950 budget estimate by more than 15 percent.

We wish to correct an error in the itemization of contingencies and overhead as shown in paragraph B 3, page 3. It is also noted that there is a typographical error in the narrative explanation on page 4. The amount of overhead was incorrectly given as $239,000. This should have been $269,000, as shown on page 5. This does not in any way affect the intent of the original request or the total cost of the project.

There are submitted herewith two copies of correct pages. It is requested that you substitute these pages for the pages in the original submission. We are also submitting forthwith these changes to the Committees on Appropriations of the Senate and the House of Representatives, and the Director of the Bureau of the Budget.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
DAVID E. LILIENTHAL, *Chairman.*

3. Cost estimates:

| | Budget estimate | Directive estimate | Current estimate |
|---|---|---|---|
| Plans and specifications (A–E services) | | $40,000 | $47,000 |
| Construction | | 168,000 | 239,000 |
| Equipment | | 907,000 | 931,000 |
| Contingencies | | 117,000 | 18,000 |
| Overhead | | | 315,000 |
| Total | $900,000 | 1,232,000 | 1,550,000 |

4. Actual costs:

| | |
|---|---|
| Costs plus commitments to Oct. 9, 1949: | |
| Direct costs | $1,124,711 |
| Overhead | 239,054 |
| Total costs | 1,363,765 |

5. Construction schedule:
Start, October 6, 1948.
Completion, October 1, 1950.

*C. Basis upon which original budget estimates were made, and previous revisions*

Preliminary plans.

*D. Progress of project*

1. Date work started: October 6, 1948.
2. Suspensions (if any): None.
3. Percentage completion: Part I, 90 percent; part II, none.
4. Estimated completion date: October 1, 1950.

*E. Detailed explanation of reasons for overrun*

The budget estimate of $900,000, prepared in August 1948, was based on preliminary plans and was prepared before all the features had been fully evaluated.

By October 1948, the plans were analyzed and detailed estimates were prepared. A directive to proceed with construction was issued. The estimated cost at that time (in which overhead was not included), and the amount authorized by the directive, was $1,232,000.

The direct costs for the work covered by the original directive (pt. I) are now estimated to be $1,120,000, a savings of $112,000 as compared with the

directive. The directive estimate, however, did not include provision for overhead (indirect manufacturing expense). The amount of overhead chargeable to the original scope of work is $269,000.

In addition, the scope of the project has now been expanded to include items not contemplated in the original estimate which accounts for an increase of $161,000. The estimate for this work (pt. II) is:

| | |
|---|---|
| (*a*) 152 pair aerial cable from White Bluffs to 100–F area | $17,500 |
| (*b*) 303 pair aerial cable from 200 E–W exchange to 200 east | 17,000 |
| (*c*) 404 pair aerial cable from 200 E–W exchange to 200 west | 26,500 |
| (*d*) Aerial Trunk cable from B–Y station to White Bluffs exchange | 34,000 |
| Subtotal | 95,000 |
| Engineering | 7,000 |
| Contingencies | 13,000 |
| Subtotal | 115,000 |
| Overhead | 46,000 |
| Total for new work only (pt. II) | 161,000 |

Item (*a*) is made necessary by the expanded use of telephones in the 100–F area. The 100–F area originally was a reactor site only. Now the new biology laboratory and the experimental animal farm will be located within 100–F area. To accomplish this a 152-pair aerial cable is required directly from 100–F area to the new White Bluffs telephone exchange.

Item (*b*) is made necessary by the fact that the new Redox Mock-up Building, the hot-testing facilities and the new Redox Building are being added to the 200 east area and will also assist in the retirement of the existing telephone exchange in 200 east in accordance with the Pacific Telephone & Telegraph Co. recommendations.

Item (*c*) is made necessary by the extremely acute telephone shortage in the 200 west area caused by the addition of the 234–5 facilities. This is made extremely pressing at present since there are no available telephone circuits to serve the Redox construction contemplated early next spring.

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EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
*Washington 25, D. C., March 21, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy, United State Senate,*
*Washington 25, D. C.*

Attachments.

MY DEAR SENATOR MCMAHON: The General Appropriation Act, 1951, under the heading "Atomic Energy Commission," requires approval by the Director of the Bureau of the Budget as a condition to the initiation and continuation of construction projects by the Atomic Energy Commission under certain circumstances.

I have today approved a request by the Commission to begin a construction project which was not included in the 1951 budget, as follows:

| Docket No. | Project title | Cost estimate | |
|---|---|---|---|
| | | 1951 budget | Current |
| A–51–6 | High Voltage Laboratory, Oak Ridge, Tenn. | (1) | $1,142,000 |

[1] Not included.

Attached to this letter are two copies of an explanatory statement, as required by the appropriation proviso. This statement, which was prepared by the Atomic Energy Commission, sets forth the need for the project and justifies the cost estimate.

Sincerely yours,

F. J. LAWTON, *Director.*

UNITED STATES ATOMIC ENERGY COMMISSION

EXPLANATION FOR PROPOSED PROJECT NOT INCLUDED IN FISCAL YEAR 1951 BUDGET

Docket No. A–51–6

*A. Basic data*

1. Name of project: High Voltage Laboratory (Van de Graaff Building).
2. Operations office: Oak Ridge.
3. Location of project: Oak Ridge National Laboratory, Oak Ridge, Tenn.
4. Current cost estimate: $1,142,000 (includes cost of laboratory and other building equipment but not high voltage machines and auxiliary equipment on hand or being separately secured).
5. Permanent project number: 5–241–0021, "Van de Graaff Building (ORNL)."
6. Brief description of project: This project covers the construction and equipping of a building and installation of high-voltage research equipment. The structure will be approximately 130 feet long and 100 feet wide and will consist of a two-story laboratory section, a high-bay section for the 2 MEV and 5 MEV Van de Graaff machines, a one-story section for scattering rooms and a Cockcroft-Walton machine, and an equipment basement. The building will contain approximately 34,650 square feet including a basement area of about 9,000 square feet. Building construction will include concrete foundation and floors and structural steel framing. Outside walls of the high-bay Van de Graaff section and the adjoining one-story section will be insulated metal panel siding of standard metal coated steel. The remaining exterior walls will be faced with 4-inch brick backed with 8-inch concrete block. Interior partitions will be of metal. Installed equipment will include chemical and physical laboratory equipment, a 4,000-pound elevator, 20-ton bridge crane and two 1-ton bridge cranes.
7. Brief outline of justification for project: The Oak Ridge National Laboratory urgently requires data provided through the use of high-voltage machines to an extent beyond that which can be obtained from other present sources, including high-voltage installations at other AEC sites or at universities. A 2 MEV Van de Graaff machine and a Cockcroft-Walton machine are presently housed in an old building. The United States Air Force is transferring to the Commission a 5 MEV Van de Graaff machine which is surplus to its needs and in order to gain the most efficient utilization of this machine and the two already located at Oak Ridge it is desirable to erect a permanent building capable of housing all three machines at the Oak Ridge National Laboratory in the X–10 area (laboratory). The only alternative to this proposal would require the modification of an old building in the Y–12 area, about 10 miles from the main laboratory, at an estimated cost of over $700,000.
8. Contract data:

(*a*) Date of construction directive: Not yet issued.

(*b*) Architect-engineer: The Austin Co. under cost-plus-a-fixed-fee contract (AT–40–1–Gen–247).

(*c*) Construction contractor: Competitive bids on the basis of formal advertising were received on February 8, 1951, and the low bidder is V. L. Nicholson, Knoxville, Tenn. (Because of the unstable condition of the market for construction supplies and services that has developed since July 1950, it was decided to advertise for bids on a lump sum or unit price basis in order to get a firm price for construction cost in lieu of accepting the architect-engineer's estimate of total cost.)

(*d*) Operating contractor: Carbide and Carbon Chemicals Division, Union Carbide & Carbon Corp. (ORNL) under Contract W–7405–Eng–26.

9. Obligation of funds to date:

| | |
|---|---|
| Fiscal year 1948 | 0. |
| Fiscal year 1949 | 0. |
| Fiscal year 1950 | $85,000 ($65,000 under the Austin Co. Contract AT–40–1–Gen–247 and $20,000 under Carbide Contract W–7405–Eng–26). |
| Fiscal year 1951 | None to date. |

*B. Basic data*

1. Date of estimate: February 8, 1951.
2. Size: Structure 130 feet by 100 feet with approximately 34,650 square feet of floor area, including equipment basement of about 9,000 square feet.

Special features: A high-bay section is required to house two Van de Graaff machines and this section will consist of heavily walled rooms. Installed equip-

ment will include laboratory equipment, 20-ton crane, and 4,000-pound elevator. Portion of building will be air conditioned.

3. Cost estimate:

| | |
|---|---|
| Plans, specifications, and inspection (the Austin Co., contract AT-40-1-Gen-247) | $85,000 |
| Construction of high voltage laboratory (low bid submitted by V. L. Nicholson, Knoxville, Tenn.) | 916,986 |
| Cost of installation of major research equipment and furnishing and installing miscellaneous building and service equipment by operating contractor. (Does not include cost of high voltage machines and auxiliary equipment) | 100,000 |
| Allowance for contingencies | 40,014 |
| Total estimated cost | 1,142,000 |

4. Unit costs: Construction of high voltage laboratory: $32.96 per square foot.

5. Construction schedule: Proposed start, March 1, 1951; proposed completion date, March 1, 1952.

*C. Detailed justification for project*

1. This project was not included in the 1951 budget since basic orientation of the aircraft nuclear propulsion program had not been worked out at the time and it would have been inappropriate to develop this facility in advance of a definitive program.

2. Existing facilities are inadequate to achieve desired results for the following reasons:

The Oak Ridge National Laboratory, in connection with its vital research and development programs and especially work in connection with the aircraft nuclear propulsion program, requires data from high voltage machines on neutron cross sections and other nuclear properties and radiation damage beyond presently available information, and in addition to what can be secured from other sources, either at Commission installations or non-Commission installations. There are presently available at Oak Ridge two high voltage machines, one being a 2 MEV Van de Graaff and the other a Cockcroft-Walton machine. These machines are housed in an old building formerly used for a powerhouse at Oak Ridge National Laboratory. The United States Air Force is presently transferring to the Atomic Energy Commission a 5 MEV Van de Graaff machine which is to be permanently located at Oak Ridge National Laboratory but, because of unavailability of suitable space to house the machine at the Oak Ridge National Laboratory, it will be temporarily located in Building 9201-2 in the Y-12 area in order to carry out preliminary "shake-down" tests without further delay. It will still be necessary to construct a permanent building to house this machine, since the most efficient utilization of all these machines and the scientific personnel connected with their operation can be effected by the consolidation of all three machines in one building. This building would provide not only space for machines, auxiliary equipment, and control rooms, but the necessary supplementary offices and physics and chemistry laboratories. Furthermore, it is eminently more satisfactory to have the three machines housed in a building in the X-10 area, adjacent to the new research building and the physics of solids building in order to provide opportunity for valuable exchange of ideas among the scientific staff of the laboratory, than to endeavor to materially modify existing facilities in the Y-12 area some 10 miles away.

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EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
*Washington, D. C., August 2, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*United States Senate, Washington 25, D. C.*

MY DEAR SENATOR MCMAHON: The General Appropriation Act for 1951, under the heading "Atomic Energy Commission," requires approval by the Director of the Bureau of the Budget as a condition to the initiation and continuation of construction projects by the Atomic Energy Commission under certain circumstances.

I have today approved the request of the Commission to begin a construction project for which the current cost estimate exceeds the amount included for the project in the 1951 budget, as follows:

| Docket number | Project title | Previous estimate | Current estimate |
|---|---|---|---|
| B-51-6 (Revised). | Biology Laboratory, Brookhaven National Laboratory, Upton, N. Y. | $915,000 | $989,700 |

Attached to this letter are copies of an explanatory statement for the project, prepared by the Atomic Energy Commission, which justifies the revised cost estimate.

Sincerely yours,

F. J. LAWTON, *Director.*

Attachments.

UNITED STATES ATOMIC ENERGY COMMISSION

EXPLANATION OF REVISED ESTIMATE FOR CONSTRUCTION PROJECT

Docket No. B-51-6 (Revised)

*A. Basic Data*

1. Name of project: Biology laboratory.
2. Location of project: Brookhaven National Laboratory, Upton, Long Island, N. Y.
3. Budget cost estimate: $915,000 (including animal quarters).
4. Current cost estimate: $989,700.
5. Increase in cost estimate: $74,700; percentage increase: 8.2 percent.
6. Budget serial number:

| | |
|---|---|
| Biology laboratory (2d phase) 6-222-0003 | $765,000 |
| Animal quarters, 6-222-1002 | 150,000 |

NOTE.—Project 6-222-0003 was shown initially as being obligated in the 1950 column of 1951 budget. Project 6-222-1002 was shown in the 1951 column of the 1951 budget. In revising the 1951 program, both projects were included in the fiscal year 1951 program and are so shown in the 1951 column of the 1952 budget. Under the proposal herein, it is planned, in order to facilitate research and assure construction economics, to combine the above projects into one structure.

7. Brief description of project: Proposed laboratory will be an extension to the existing biology laboratory (phase 1) at the Brookhaven National Laboratory. Structure will contain 25,100 square feet of floor space on two floors and will be constructed of concrete block with a light steel frame. Facilities to be provided consist of eight general laboratories and six animal experimental rooms for physiology research, two general and three small laboratories for microbiology research; plus necessary dark laboratories, analytical laboratories, cold laboratories, incubation, inoculation, counting, glass washing, sterilizing, and instrument rooms. Animal quarters are included, consisting of nine animal rooms, cage sterilizing and storage room, and a feed storage and preparation room. Three administrative offices, an allowance for office space in laboratories, seminar room, and a stock room are also provided. Laboratories will be equipped with standard laboratory furniture and hoods. All necessary services and utilities will be brought to the laboratories and the building will be air conditioned only to the extent required for proper operation.

8. Brief outline of justification of project: The biology research programs for the Atomic Energy Commission at Brookhaven will expend during the next few years due in part to increased requirements for military purposes, particularly studies on gamma and X-ray toxicity, including both chronic and acute exposure, and to longer range basic research. The premise behind the approved biological research program at Brookhaven National Laboratory was that the activities of the Department should grow slowly. This would permit selection of the best available scientists and tie research growth to the activation of the reactor and other major laboratory machines. Growth was also limited by the lack of ade-

quate quarters. The growth of the scientific staff has been and is expected to be as follows:

*Scientific staff*

| | Regular | Visitors | Total |
|---|---|---|---|
| 1949 | 18 | 6 | 24 |
| 1950 | 19 | 8 | 27 |
| 1951 | 25 | 12 | 37 |
| 1952 | 30 | 15 | 45 |
| 1953 | 41 | 15 | 56 |

The biology laboratories at Brookhaven National Laboratory were planned in two steps: First, a modification of an existing building, plus a small addition designed to provide working space for 28 scientists plus necessary technicians, placing emphasis on providing facilities for tracer work and research involving radiation effects on plants; and, second, an addition to the first phase to provide space for an additional 28 scientists with emphasis on facilities for radiation biology, particularly with animals.

Total proposed staffing in facilities for the biology program is tabulated below:

*Biology Laboratory*

| | First phase | Second phase | Total |
|---|---|---|---|
| Scientists | 20 | 21 | 41 |
| Technicians | 20 | 23 | 43 |
| Administrative | 1 | 4 | 5 |
| Subtotal | 41 | 48 | 89 |
| Visiting scientists | 7 | 8 | 15 |
| Total | 48 | 56 | 104 |

Construction in two stages was practical as well as desirable inasmuch as—

(*a*) Phase No. 1 represented the conversion of an existing facility and included only such features as were immediately required for the operation of the existing biological research program.

(*b*) The plans for phase No. 2 revolve around the development and progress of a planned biological research program. This has allowed an opportunity to reflect in the facility the additional features advocated in the long-range plans of the new department head and staff, and a fuller utilization in research of the new and unique research tools available at Brookhaven.

Possibly the most important portion of the Brookhaven biology program deals with research on the physiological and genetic effects of radiation on animals. This program, which is of special interest to the Commission, has grown slowly because proper facilities, including animal quarters, were not available. The start-up of the pile and cyclotron has now made available various types of radiation and large varieties of radioisotopes, including extremely short-lived ones which will permit a profitable expansion in the radiation biology program. Proper facilities for work with animals at either low or high levels of activity are not available and must be constructed. No animal quarters for biology research have been constructed at Brookhaven. At present, animals are kept in small inadequate temporary quarters which limit the proper control of experiments and prevent precise research on long-term effects of radiation.

Need for air conditioning: The need for air conditioning has been carefully studied and every effort made to keep air-conditioning requirements at the bare minimum consistent with proper operation of the building. Nonresearch areas such as administrative offices, seminar rooms, stockrooms, and shop will not be air-conditioned, nor will special ventilation be provided.

The laboratory site on Long Island is extremely humid which affects the accuracy of many instruments and culture medias required for research. Variations in background and reliability of counting, have been observed and correlated with high humidity conditions. Meteorological observations taken in accordance with standard United States Weather Bureau procedures, reveal

that the humidity at Brookhaven exceeded the maximum considered allowable for proper research in about 60 percent of all hours during July and August 1949 and 1950.

It is also necessary to closely control temperatures to achieve optimum scientific results, particularly in research with plants and small animals which are greatly affected by temperature changes. Design heat loads are based upon actual experience in an existing representative laboratory and upon conservative estimates of animal population.

An important phase of AEC biological research deals with the long-range physiological reactions caused by radiation. Adequately controlled animal quarters are vital to this research so that results through succeeding generations will not be affected by climatic changes. Animals kept in close confinement in animal quarters are highly subject to disease which may result in loss of valuable research as well as direct financial loss due to the breaking of a hereditary chain of test animals. Because of these facts and the climatic conditions of the area, air conditioning of the animal quarters is included as an essential design factor.

9. Contract data:

(*a*) Date of construction directive: December 18, 1950.

(*b*) A–E contractor: York & Sawyer, New York, N. Y. Type of contract: Lump sum prime with CPFF inspection provision. Date of award: December 27, 1950.

(*c*) Construction contractor: Roberts Nash Construction Corp. Type of contract: Lump sum prime. Date of award: July 1951 (proposed).

10. Obligation of funds to date:

| | |
|---|---|
| 1949 funds | 0 |
| 1950 funds | 0 |
| 1951 funds | $62,179 |

*B. Comparative data*

| | Budget estimate | Current estimate |
|---|---|---|
| 1. Date of estimate | July 19, 1949 | June 26, 1951. |
| 2. Size | 27,800 square feet | 25,100 square feet. |
| Designed capacity (number of scientists) | 21 | 21. |
| 3. Cost estimate: | | |
| A/E service | $54,000 | $66,000. |
| Construction | $703,000 | $903,700. |
| Equipment (laboratory) | $122,000 | |
| Contingencies | $36,000 | $20,000. |
| Overhead | 0 | 0. |
| Total | $915,000 | $989,700. |
| 4. Unit costs, construction and equipment cost | $29.68 square foot | $36 square foot. |
| 5. Actual costs to May 31, 1951 | | $44,501. |
| Actual obligation on May 31, 1951 | | $62,179. |
| 6. Construction schedule: | | |
| Start | August 1950 | July 1951. |
| Complete | May 1951 | July 1952. |

*C. Basis of original budget estimate*

Prepared by the operating contractor from rough sketches and average square foot costs.

Basis of present estimate: The present estimate is firm and is based on the low contract bid received for the project. Over 75 firms were invited to bid on the project, 20 requested plans or specifications for review, and 12 bids were received. The range of the bids was from $883,700, low bid, ($20,000 has been added to construction estimate for site development work not included in contract specifications), to $1,201,800, high bid.

*D. Progress of project*

1. Date design started: January 3, 1951.
2. Suspensions: None.
3. Percentage completion: 100 percent.
4. Estimated completion date: Design, May 24, 1951 (actual); Construction, July 1952.

*E. Detailed explanation of reasons for overrun*

The net overrun of this project results from the following general causes:

1. Reduction in area: When it became apparent that an overrun would occur on this project, every effort was made to reduce design criteria and space requirements to an absolute minimum. This resulted in the present building being 2,700 square feet smaller than the total of the budgeted structure. Thus, 2,700 square feet at the budget cost of $29.68 per square foot amounts to a project cost reduction of $80,136 to be taken into consideration.

2. Increased cost level since original budget submission: The firm of architect-engineers employed on this project has analyzed price increases in the cost of purchasing and installing mechanical and electrical equipment in the New York City area during the July 1949 to February 1951 period by manufacturing firms such as Minneapolis Honeywell Regulator Co. and the Carrier Corp. and various construction and specialty firms. Results of this survey are as follows:

Air conditioning costs: Increased 50 percent.

Electrical costs: Increased 50 percent.

Plumbing costs: Increased 25 percent and expect an additional increase of 12½ percent within next month or so as material costs have sharply risen during last weeks (i. e., lead up 40 percent, wrought and cast iron up 20 percent).

Laboratory equipment: Increased 25 percent.

As the cost of the proposed biology laboratory is predominantly mechanical and electrical and these items have substantially increased, the architect-engineer has determined that a reasonable figure for cost-level increase over the 2-year period is 25 percent.

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## A HANFORD PURCHASING PROBLEM

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*May 7, 1951.*

Mr. MARION BOYER,
*General Manager, Atomic Energy Commission,*
*Washington, D. C.*

DEAR MR. BOYER: The joint committee has received a complaint which alleges that the General Electric Co. is conducting its electrical-equipment procurement in a manner which is detrimental to other manufacturers or suppliers, and beneficial to its subsidiary, General Electric Supply Corp. It is alleged that this is being done by two devices:

(1) Multiple purchases without competitive bid in lots not exceeding $250, as prescribed in GE's operating contract.

(2) Writing specifications for equipment to be bid upon around standard GE items, thus making it difficult, if not impossible, for other manufacturers to comply.

On replacement procurement for GE equipment already installed, it is understandable that the above conditions could obtain to a large degree but even so, not to the complete exclusion of all other manufacturers. In the case of new construction items, genuine competitive bidding should, of course, be the rule.

I would appreciate, therefore, a summary of the dollar value of purchases made by GE during the last 6 months, by months, showing the value by percentage of orders placed with GE subsidiaries under this $250 exemption clause. I would further appreciate a statement as to the degree to which the AEC finds that specifications for equipment to be purchased competitively have been written around standard GE manufactured items.

Thank you for your interest in this matter.

Sincerely yours,

HAROLD BERGMAN, *Acting Director.*

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., May 23, 1951.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: This will acknowledge receipt of a letter received from Harold Bergman, Acting Director, Joint Committee on Atomic Energy, dated May 7, 1951, in regard to a complaint received by the joint committee concerning the practices used by the General Electric Co. in purchasing electrical equipment. The letter asks for certain specific information concerning General Electric Co. purchases.

Since the information requested is not available in our Washington office, we have requested our operations offices concerned to develop it for submission to us at an early date.

Upon receipt of the information it will be promptly consolidated and sent to you.

Sincerely yours,

M. W. BOYER, *General Manager.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C. June 11, 1951.*

Mr. WILLIAM L. BORDEN,
*Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: Reference is made to Mr. Harold Bergman's letter dated May 7, 1951, stating that the joint committee has received a complaint which alleges that the General Electric Co. is conducting its electrical equipment procurement in a manner which is detrimental to other manufacturers or suppliers and beneficial to its subsidiary, General Electric Supply Corp. Reference is also made to my interim reply of May 23, 1951.

Mr. Bergman requested a summary of purchases made by General Electric during the past 6 months in amounts less than $250. Attached is a summary of purchases less than $250, by months, from October 1, 1950, through March 31, 1951. The summary indicates these purchases for the 6-month period as amounting to $134,140, 45 percent of which was purchased from General Electric or its subsidiaries and 55 percent of which was purchased from other suppliers. A review of these purchases at our Hanford and Schenectady operations offices indicates no evidence of the use of multiple purchases below $250 to circumvent competition.

Concerning the allegation that specifications for equipment to be bid upon are written around standard General Electric items, every effort is made to secure competitive bids whenever possible. Specifications are required to be drawn in such a manner that they can be used as a basis for bids by other suppliers. General Electric at times refers to a General Electric catalog number to assist in describing specific items to be purchased. However, we require that whenever this is done either a competitive manufacturer's name or catalog number be included or a qualifying statement such as "similar or equal to" be added.

Your interest in this matter is appreciated. If additional information is desired, we shall be pleased to furnish it.

Sincerely yours,

M. W. BOYER, *General Manager.*

*Summary of dollar value purchases by General Electric Co.*

[Purchases less than $250, Oct. 1, 1950, through Mar. 31, 1951, Hanford and Schenectady operations offices]

| | General Electric | | Other | |
|---|---|---|---|---|
| | Dollar value | Percent of total | Dollar value | Percent of total |
| **Supplies** | | | | |
| October | 2,667 | 35 | 4,897 | 65 |
| November | 3,933 | 49 | 4,020 | 51 |
| December | 6,643 | 64 | 3,673 | 36 |
| January | 4,356 | 47 | 4,931 | 53 |
| February | 5,165 | 48 | 5,583 | 52 |
| March | 5,166 | 50 | 5,096 | 50 |
| Total | 27,930 | 50 | 28,200 | 50 |
| **Electronics** | | | | |
| October | 787 | 37 | 1,348 | 63 |
| November | 855 | 49 | 870 | 51 |
| December | 498 | 40 | 744 | 60 |
| January | 952 | 61 | 621 | 39 |
| February | 888 | 35 | 1,630 | 65 |
| March | 433 | 36 | 757 | 64 |
| Total | 4,413 | 43 | 5,970 | 57 |
| **Appliances** | | | | |
| October | 182 | 26 | 521 | 74 |
| November | 434 | 68 | 203 | 32 |
| December | 100 | 20 | 396 | 80 |
| January | 268 | 32 | 561 | 68 |
| February | 171 | 28 | 440 | 72 |
| March | 123 | 28 | 318 | 72 |
| Total | 1,278 | 34 | 2,439 | 66 |
| **Apparatus** | | | | |
| October | 4,063 | 41 | 5,727 | 59 |
| November | 3,604 | 37 | 6,053 | 63 |
| December | 4,261 | 52 | 3,876 | 48 |
| January | 3,396 | 36 | 5,945 | 64 |
| February | 3,644 | 33 | 7,517 | 67 |
| March | 4,605 | 45 | 5,634 | 55 |
| Total | 23,573 | 40 | 34,752 | 60 |
| **X-Ray** | | | | |
| October | 394 | 92 | 32 | 8 |
| November | 129 | 41 | 186 | 59 |
| December | 307 | 90 | 33 | 10 |
| January | 248 | 72 | 99 | 28 |
| February | 147 | 49 | 150 | 51 |
| March | 357 | 100 | 0 | 0 |
| Total | 1,582 | 76 | 500 | 24 |
| **Chemicals** | | | | |
| October | 260 | 38 | 419 | 62 |
| November | 443 | 94 | 24 | 6 |
| December | 172 | 46 | 203 | 54 |
| January | 384 | 86 | 64 | 14 |
| February | 146 | 21 | 534 | 79 |
| March | 476 | 54 | 408 | 46 |
| Total | 1,851 | 53 | 1,652 | 47 |
| Grand total | 60,627 | 45 | 73,513 | 55 |

Total General Electric and other ..... 134,140

Total number of purchase orders:

General Electric ..... 880

Other ..... 1,101

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*June 22, 1951.*

Mr. MARION W. BOYER,
*General Manager, United States Atomic Energy Commission,*
*Washington, D. C.*

DEAR MR. BOYER: I have carefully read your letter of June 11, 1951, regarding purchases in amounts of $250 or less at Hanford and Schenectady, and also regarding the purchase of electrical equipment at the same installations. I appreciate your developing the information which this letter contains.

However, I am wondering if the formal agreement with the contractor ought not to contain a clause requiring that any items purchased by the contractor from its own organization be furnished at cost; or else that the amount of the profit on such items be subtracted from any fee or overhead payments made by the AEC to the contractor; or else that a definite ceiling be placed upon the percentage of total purchases which the contractor may acquire from itself at a profit.

If you feel that the profit made by the contractor with reference to these items is a legitimate part of its inducement to enter into a contract with the Government, how does AEC weigh this profit element quantitatively while negotiating the contract? In other words, how much profit not otherwise obtainable do you estimate the contractor will net as a result of being in a position, as an AEC contractor, to purchase from itself; and do you press for a lower fee and/or overhead payment in accordance with your calculation, using it as an overt argument?

Thanks very much indeed for your further comment.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C. July 11, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: This is to acknowledge receipt of your letter of June 22, 1951, relative to purchases from General Electric at Hanford and Schenectady.

In answering your letter, we believe it would be helpful to include an analysis of purchases from General Electric in excess of $250. The additional information is being assembled as rapidly as possible. You may expect our reply within several days.

Yours very truly,

M. W. BOYER, *General Manager.*

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., August 2, 1951.*

DEAR SENATOR MCMAHON: This is in reply to your letter of June 22, relative to purchases from the General Electric Co. under contract No. W–31–109–Eng–52. By letter dated July 6, 1951, we advised you that we were accumulating data on General Electric purchases in excess of $250 for use in analyzing the points raised in your letter.

The questions contained in your letter are based on two assumptions: (1) That the General Electric Co. by reason of its contract with the Commission is in a favored position as against its competitors to supply its products to the Commission; and, (2) that the nature of the arrangements is such that there may be a duplication of cost or profit reflected in the purchase price of items furnished by the company and in payments under the provisions of contract No. W–31–109–Eng–52. While these assumptions certainly must be dealt with in entering into arrangements such as we have with the General Electric Co., we are of the opinion that our administration of the GE contract has avoided both of these possible evils. As you know, the company receives a fee of $1 for performing all the work required under the contract at both Hanford and Schenec-

tady. The amount of administrative overhead provided for in the contract represents that share of the contractor's home-office overhead attributable to direct services rendered and is charged only to the extent specific administrative departments contribute to work under the contract. In view of these facts, it is apparent that there is no profit or overhead which duplicates profit involved in specific sales to the Commission.

In our opinion the amount of profit which is directly attributable to the fact that the company has a contract with the Commission is conjectural. We do not believe that the expectation of such profit was a significant factor in the company's decision to enter into the contract with the Commission. The company has at all times been fully cooperative in our efforts to establish safeguards to insure that the company's competitors are fairly dealt with. Thus, all purchases in excess of $250 in which General Electric might participate as a supplier are administered at Hanford directly by the Commission on a competitive basis. Accordingly, the company has been substantially in the same position as any other bidder as to products of its own manufacture. With respect to purchases under $250 the Commission has recently requested the right to require competitive bidding and the company has expressed complete willingness to make this revision in the contract. Similarly, it has agreed to permit our Schenectady office to administer directly all purchases where GE is a prospective bidder.

A table of products purchased from the General Electric Co. at Hanford for the period from September 1946 to June 1951, including items involving less than $250, compared with similar classes of products purchased from other competitive sources follows:

| | Total | Purchased from GE | Percent | Purchased from other sources | Percent |
|---|---|---|---|---|---|
| Heavy equipment | $7,570,244 | $3,685,060 | 48.68 | $3,885,184 | 51.32 |
| Appliances | 1,280,469 | 291,095 | 22.73 | 989,374 | 77.27 |
| Supplies | 1,037,327 | 526,119 | 50.72 | 511,208 | 49.28 |
| Other items | 888,758 | 287,295 | 32.32 | 601,463 | 67.68 |
| Total | 10,776,798 | 4,789,569 | 44.44 | 5,987,229 | 55.56 |

The commercial departments of the General Electric Co. have also furnished assistance under the contract in the form of technical and consulting services as well as the manufacture of specially designed and engineered items. The amount paid for this volume of business totals $4,921,085.52 for the period from September 1946 to May 31, 1951, and payment has been based on actual cost plus factory overhead allocable to the work (exclusive of general expenses and any element of profit).

Considering the position of the General Electric Co. in the industry and the ratio of its sales to total sales for the industry the relationship between GE purchases and purchases from other sources on a profit basis is, in our opinion, not out of line with the ratio which would exist if General Electric were not our contractor.

It appears to us that in contracts of this type, the contract should be written and administered so as to insure that the company will receive no special advanage in the bidding process, and also that double payment of profit and overhead is avoided. Beyond that, we believe that the company should be free to compete on equal terms with other concerns. To circumscribe the right of the contractor to compete on products of its own manufacture might well discourage large companies from participating in the program. Moreover, it might deprive the Government of the resources of a company equipped to render unique or exceptional services. On the other hand, to require it to furnish products of its own manufacture at cost would practically close the market to competitors, who could not be expected to compete against GE's cost prices.

Yours very truly,

M. W. BOYER, *General Manager.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

## LOS ALAMOS PLANE SERVICE

ATOMIC ENERGY COMMISSION,
*December 19, 1949.*

Mr. WILLIAM BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Washington, D. C.*

DEAR MR. BORDEN: This is in response to the telephone request from your committee asking about the revenues received by the Carco Air Service under its contract with the Government for the operation of an air service between Los Alamos and other AEC installations. A schedule of the monthly amounts received by Carco from the AEC and the University of California during the calendar year 1949 is attached.

In considering this information you may be interested to know that only about 19 percent of the scheduled revenues were received by Carco from flights between Los Alamos and Albuquerque. The largest part of the revenues was received for the transportation of classified materials and flights to and from the Salton Sea test base and outlying procurement centers connected with Los Alamos operations. Commercial transport between Los Alamos and these outlying AEC installations is frequently impractical on account of the comparative isolation of Los Alamos and some of the other sites. The operation of the air service has proved of considerable advantage to operations which frequently require the expeditious carriage of urgently needed freight items between these sites and Los Alamos. Moreover, passenger carriage, particularly between Los Alamos and Albuquerque, is considerably expedited by the air service. The carriage of passengers between Los Alamos and Albuquerque by the air service has already resulted in substantial savings to the Government as compared with the performance of such transportation by Government-owned autos.

If there is any further information we can furnish you on the Carco operations, please let us know.

Sincerely yours,

JAMES MCCORMACK, Jr.,
*Brigadier General, A. U. S., Director of Military Application.*

*Schedule of monthly payments*

| Month | Paid by AEC | Paid by University of California | Total |
|---|---|---|---|
| January 1949 | $23,490.99 | $9,719.33 | $33,210.32 |
| February 1949 | 20,813.63 | 11,770.10 | 32,583.73 |
| March 1949 | 17,987.76 | 10,441.15 | 28,428.91 |
| April 1949 | 23,077.46 | 11,043.60 | 34,121.06 |
| May 1949 | 27,193.03 | 10,567.25 | 37,760.28 |
| June 1949 | 30,032.05 | 11,545.45 | 41,577.50 |
| July 1949 | 27,249.58 | 17,812.27 | 45,061.85 |
| August 1949 | 15,413.04 | 17,696.89 | 33,109.93 |
| September 1949 | 19,650.01 | 10,944.31 | 30,594.32 |
| October 1949 | 23,181.92 | 17,935.44 | 41,117.36 |
| November 1949 | 14,519.14 | 23,171.30 | 37,690.44 |
| Total | 242,608.61 | 152,647.09 | 395,255.70 |

## A LOS ALAMOS COMMUNITY PROBLEM

ATOMIC ENERGY COMMISSION,
*Washington, October 24, 1949.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Senate Office Building, Washington 25, D. C.*

Dear Mr. BORDEN: In a telephone conversation with Mr. Gettman of this office on September 29, 1949, Mr. Heller of your staff requested information regarding an article appearing in the September 23 issue of the Santa Fe New Mexican which quoted Mr. Earl D. Sullivan, manager of community affairs, Santa Fe operations office, as stating that studies are in process to determine whether the

new men's dormitory can be used as a club building for the Los Alamos veterans organization.

The newspaper article suggests that studies were being made to determine whether the whole men's dormitory could be used as a club building by a Los Alamos veterans organization. We are advised by Mr. Tyler's office that this impression is erroneous. A study was made of the possibility of utilizing the main lounge on the first floor of the new men's dormitory as a club room for a veterans organization rather than keeping it for use exclusively by residents of the dormitory. A poll was taken of the residents of the dormitory on this question which turned up a considerable number of objections. As a result of this, it has been determined not to permit the use of the lounge by the veterans organization.

If you wish further information, I will be glad to attempt to supply it.

Sincerely yours,

JAMES S. RUSSELL,
*Captain, USN.*

For and in the absence of

JAMES MCCORMACK, Jr.,
*Brigadier General, AUS,*
*Director of Military Application.*

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## A "KICK-BACK" INVESTIGATION

[A memorandum dated May 11, 1949, from the joint committee staff to the chairman proposed an amendment to the McMahon Act establishing an Office of Inspection responsible directly to the Atomic Energy Commissioners. This memorandum expresses concern because "the Commissioners themselves have not, in some important cases, been sufficiently informed and advised of important developments in their own organization." "Most large industrial concerns, as well as the armed services," the memorandum adds, "have established an inspecting fact-finding group which conveys information directly to the top-ranking officials concerned." At the direction of the chairman, language for an amendment was drafted, as follows:

> "Section 2 (a) (4) of the Atomic Energy Act of 1946 is amended by inserting at the end thereof the following new subsection:
>
> "'(c) An Office of Inspection, headed by a Chief Inspector. The Chief Inspector shall be appointed by the Commission, shall report directly to the Commission, and shall be responsible to the Commission alone. The Office of Inspection shall undertake such fact-finding surveys and analyses, conduct such inquiries and investigations, and make such studies and such recommendations with respect to the Commission's interests, activities, and operations as the Commission may deem helpful in efficiently and economically fulfilling its responsibilities.'"

The proposed amendment was sumbitted informally to the Commission for comment. The idea of establishing some form of inspecting and investigating force within AEC figured in a number of conferences between the committee chairman or committee staff members and Commission officials. The latter indicated that any investigative unit which might be formed should probably be responsible to the General Manager rather than to the Commissioners. In December 1949 the committee staff was advised orally that an investigative unit had in fact been set up but that its mission and functions had yet to be clearly defined. In response to a committee request telephoned to the Commission on January 26, 1950, the following letter was received:]

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., February 17, 1950.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Washington, D. C.*

DEAR MR. BORDEN: We have felt for some time that it would be desirable to have within AEC a small group of specially qualified employees available for such administrative inspections and examinations as the General Manager or other appropriate AEC officials might feel to be desirable. Some time ago we took the initial step of appointing Mr. Arthur McLawhon, formerly Chief, Examination Division, Farmers Home Administration, Department of Agriculture, as chief of this new unit and have since placed five men on his staff.

The work of this group is principally concerned with operations and transactions related to the procurement, management, and disposition of Government property and the handling of Government funds. Other subjects of special inquiry may appear desirable from time to time.

The purpose of the group is to develop facts as a basis for administrative action. The facts developed by this group might, for example, indicate the desirability of changing existing or establishing new procedures, or of taking corrective administrative action in a particular case. It is not intended that the group will inquire into criminal violations except to the extent that some administrative action may also be indicated. The Department of Justice will of course continue to inquire into criminal violations, and arrangements have been made with that Department to assure that our inquiries will not interfere with their investigations. The group has no responsibilities for the investigation of possible security violations under the Atomic Energy Act.

The precise responsibilities, organization, and methods of operation of the new group have not yet been fully defined and are still under active consideration by the Commission's staff. Work has, however, already been undertaken along two general lines. One of these is the preparation of factual reports on the procedures and practices in effect at our area offices and principal cost-type contractors in the procurement of materials and supplies. It is contemplated that the information developed will be of material assistance in connection with procurement policies and procedures for the atomic energy project. In addition, inquiries have been conducted by this group in a few specific cases involving allegations of irregularities arising out of the Commission's operations.

Very truly yours,

C. SHUGG,
(For Carroll L. Wilson, General Manager).

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., May 17, 1950.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Washington, D. C.*

DEAR MR. BORDEN: Our letter of February 17, 1950, to you advised of the establishment of a staff within AEC to perform administrative inspections and examinations. This group has thus far concentrated on surveys of practices being followed by AEC and cost type contractor's procurement offices with particular attention given to compliance with policy and procedures, competitive practices and any indications of fraud, collusion, or irregularity. The information developed has been very beneficial to management in formulating policies, improving controls and in receiving assurance that procurement is being accomplished free of fraud. We have recognized, however, that there is need for maximum coordination of the activities of this group with those of our audit staff. Toward this end we have now integrated the activities of these two groups into a single unit which will function on the staff of and be responsible to the controller.

It is contemplated that through this combined group we will be able to supplement our regular audit program with a program of inspections and examinations of specific phases of operations designed to throw light on matters which may be beyond the normal scope of an audit. By coordinating the activities and reports of these two functions under one supervisor we hope to achieve maximum as-

surance of effective internal control, compliance with policies and procedures and freedom from fraud and irregularity in matters involving use of public funds and property with a minimum of manpower.

Very truly yours,

C. SHUGG,
(For Carroll L. Wilson, General Manager).

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., August 23, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: Some months ago our Controller's investigative staff uncovered evidence of fraudulent practices on the part of two buyers employed by one of our Santa Fe operations contractors, Holmes & Narver. The matter was immediately referred to the FBI for full investigation.

Recently we have received a copy of the FBI's interim report on this matter which indicates that the Government may have been defrauded of some $60,000 through collusive bidding and kick-backs to contractor employees.

The FBI is continuing its investigation, and we will keep you informed of further developments.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., November 26, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: Reference is made to our letter of August 23, 1951, in which we informed you of the fraudulent practices of buyers employed by one of our Santa Fe operations contractors, Holmes & Narver, Inc.

One buyer, Gordon T. Raitt, and the partners of Halmos and Keith, were indicted by the Federal court in California. They entered pleas of nolo contendere and submitted a compromise offer of $20,000 to the Department of Justice to settle their civil liability. This offer was accepted by the Department of Justice. We understand that Raitt received a suspended sentence of 18 months and $1,000 fine and was placed on probation for 5 years, and that Halmos and Keith each received a 2 years' suspended sentence, a $3,500 fine, and were sentenced to 30 days in the county jail, thereafter being placed on probation for 5 years.

The FBI is continuing its investigation of the activities of other buyers of the contractor.

We will keep you informed of further developments.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

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## A FORCED RESIGNATION

SEPTEMBER 14, 1951.

Memorandum for the files.
From: William J. Bergin, joint committee staff.

I contacted Larry Bayer, AEC Division of Military Application in reference to the below-summarized item, which appeared in the press of September 12.

"Los Alamos Herald, in copyrighted story, says that Frank Rogers, assistant manager for Zia Co., purchased a 1951 Cadillac from Theater Enterprises, Inc., while making a survey which led to the firm receiving contract to operate a second theater on the hill. Charges that Mr. Rogers paid some $400 under list price for the vehicle. Carroll L. Tyler, AEC manager at Los Alamos, expresses confidence

in integrity of Zia officials and says that action of no single individual can affect letting of concession contracts."

According to Mr. Bayer, Frank Rogers admitted that he purchased a 1951 Cadillac for $400 under the list price through the aid of Theater Enterprises, Inc., which received a contract to operate a second theater at Los Alamos. Rogers resigned from his position as assistant manager for Zia Co. and a member of the board of directors on September 12.

The following item appeared in the September 5, 1951, p. m. AEC press digest:

"Carroll L. Tyler, manager, Santa Fe operations office, sends letter to Los Alamos concessionaires warning them not to offer gifts or gratuities to AEC employees and in same letter warning employees against entering into personal business transactions with concessionaires and contractors."

Mr. Bayer states that the above-mentioned letter by Mr. Tyler was issued prior to the Rogers incident. He added the manager of the Santa Fe operations office periodically reissues the above-mentioned letter which had its origin in a GM bulletin issued in 1948 which referred to gifts from contractors' concessionaires.

Mr. Bayer stated that insofar as the theater contract is concerned it was signed by Carroll L. Tyler, and Rogers had no bearing whatsoever on the reward. It is claimed that the contract and its terms are handled by the AEC and not by Zia. After the contract has been signed, Zia administers it, collects rents, and performs any maintenance which may be required.

A request for a written report on this matter has been made to the AEC.

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ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., October 25, 1951.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: This letter is to inform you of the facts in the recently publicized incident at Los Alamos involving the discount purchase of an automobile from a concessionaire by a Zia Co. official.

The manager, Santa Fe operations, was advised by the manager, Zia Co., on September 6, 1951, that the Los Alamos Herald planned to publish a story reporting that Mr. Frank Rogers, assistant manager of the Zia Co., had bought a 1951 Cadillac from Theatre Enterprises, Inc., for some $400 under list price, at a time when that firm was being considered as the operator for a movie theater at Los Alamos. This story was published by the Los Alamos Herald on September 7, 1951. On September 11, 1951, Mr. Rogers, who had been on leave, returned and acknowledged the transaction. His resignation was accepted and his Zia employment terminated on September 14, 1951.

On November 15, 1949, the manager, Santa Fe operations, had advised AEC employees and all Los Alamos contractor and concessionaire organizations that AEC employees were not to accept gifts from contractors or concessionaires or to engage them in any personal transactions under conditions that are not readily available to the general public. He reaffirmed this policy on August 27, 1951, without prior knowledge of the referenced incident. The project manager, Zia Co., notified all Zia Co. employees on September 18, 1951, that Mr. Tyler's letter would, in the future, apply to them as well as to AEC employees.

On September 19, 1951, the manager, Santa Fe operations, discussed this incident with a special agent of the FBI at Los Alamos. The United States District Attorney of New Mexico was notified and has since advised the manager, Santa Fe operations, that, in the former's opinion, the transaction did not constitute a crime and that he intended to take no action.

Mr. Rogers was not in a position to do more than recommend awards of concession contracts. The final decision for such awards rests with the AEC manager and is based on information developed by and advice of both AEC and Zia Co. staff. No evidence has been found that Mr. Rogers' actions in any way subverted the interest of the Government in the award of the contract to Theatre Enterprises, Inc.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

## LOS ALAMOS HOUSING DEFECTS

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., November 8, 1949.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Senate Office Building, Washington 25, D. C.*

DEAR SENATOR MCMAHON: This is in further reference to our letter of June 3, 1949, concerning the matter of defects in the housing in the western housing area at Los Alamos, N. Mex.

In our letter, we advised you that the Department of Justice had been informed by letter of May 27, 1949, of the existence of a possible claim against W. C. Kruger and his successor W. C. Kruger & Associates, Architects-Engineers, Inc., and had been requested to take appropriate steps to protect the interests of the Government. Thereafter, at its request, we transmitted to the Department of Justice by letter of July 28, 1949, various documents referred to in our letter of May 27 to that Department.

There is enclosed herewith a copy of a letter dated October 17, 1949, to the Commission from H. G. Morison, Assistant Attorney General, advising that the Department of Justice finds no basis for a successful recovery by institution of suit against W. C. Kruger or his successor.

In view of the possible claim and in order to avoid any prejudice to the position of the Government in the event of a lawsuit, we had deferred final action under the price-adjustment provisions of the contract pending a decision by the Department of Justice. Since receipt of the letter from the Department of Justice, we have authorized our Los Alamos office to proceed with negotiations under the price-adjustment clause. As suggested in the letter from the Department of Justice, it may be possible to effect some recovery for the housing defects by a reduction in the contract price under the price-adjustment clause.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
DAVID E. LILIENTHAL, *Chairman.*

Enclosure: Letter to Atomic Energy Commission from Assistant Attorney General dated October 17, 1949.

DEPARTMENT OF JUSTICE,
*Washington, D. C., October 17, 1949.*

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C.*

(Attention Carleton Shugg, Esq., deputy general manager.).

DEAR SIRS: This refers to your letter dated July 28, 1949, and the enclosures therein mentioned relating to a possible claim against W. C. Kruger, an individual, trading as W. C. Kruger Co., and his successor, W. C. Kruger and Associates, Architects-Engineers, Inc., based upon breach of a contract relating to a housing development of the Atomic Energy Commission at Los Alamos, N. Mex.

The Department has carefully examined the documents and memorandum furnished by you with reference to this matter, and we find therein no basis for a successful recovery by the institution of suit against W. C. Kruger, an individual trading as W. C. Kruger Co., and his successor, W. C. Kruger and Associates, Architects-Engineers, Inc.

It is suggested that some recovery might be accomplished by your attempting to obtain a reduction of the contract price as a part of the negotiations for a price adjustment under the price adjustment terms of the contract.

The documents transmitted with your letter dated July 28, 1949, are returned herewith.

Sincerely yours,

H. G. MORISON,
*Assistant Attorney General*
(For the Attorney General).

Enclosure No. 12080.

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*December 12, 1949.*

ATOMIC ENERGY COMMISSION,
*1901 Constitution Avenue, Washington, D. C.*

(Attention Mr. Carroll L. Wilson, general manager.)

GENTLEMEN: In your letter of November 8 concerning the matter of defects in housing in the western housing area at Los Alamos, N. Mex., you indicated that some further action might be taken by your Los Alamos office.

The interest of the committee members in this case continues and therefore, we would appreciate information of any action taken to effect some recovery for the housing defects by a reduction in the contract price under the price adjustment clause, as suggested in your letter.

It is understood that the Department of Justice has taken no further action with regard to W. C. Kruger or W. C. Kruger and Associates, Architects-Engineers, Inc.

Sincerely yours,

HAROLD BERGMAN,
*Deputy Director.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., December 22, 1949.*

Mr. WILLIAM L. BORDEN,
*Executive Secretary,*
*Joint Committee on Atomic Energy,*
*Senate Office Building, Washington, D. C.*

(Attention Mr. Harold Bergman.)

DEAR SIR: We have forwarded your letter of December 12 on the subject of W. C. Kruger and Associates, Architects-Engineers, Inc. to the Manager, Santa Fe Operations, requesting information on his current negotiations under the price adjustment clause.

It is anticipated that in the near future we shall be able to reply more fully to your inquiry.

Sincerely yours,

C. SHUGG,
For CARROLL L. WILSON, *General Manager.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., August 17, 1950.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*United States Senate.*

DEAR SENATOR MCMAHON: This is in further reference to our letters of June 3 and November 8, 1949, concerning the matter of defects in the housing in the western housing area at Los Alamos, N. Mex.

The Office of Santa Fe Operations has completed negotiations under the price adjustment provision of the contract with W. C. Kruger and Associates, Architect-Engineers, Inc., and a refund to the Government in the amount of $140,984.79 has been made by that firm. This amounts to roughly a 25-percent reduction in the original contract price of $563,631.73.

We shall be glad to furnish any additional information on this matter that you may wish.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

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## SOME CHARGES AND DENIALS

The following article appeared in the December 1951 issue of Co-Op Power News for members of the Hancock-Wood Electric Cooperative of North Baltimore, Ohio:

SOME REASONS WHY TAXES ARE HIGH AND CRITICAL MATERIALS ARE SCARCE

Recently J. S. Sawvel, public utility and engineering consultant who advises Hancock-Wood in connection with our engineering and operating problems, visited Los Alamos, N. Mex., the site of the research and development laboratories of the Atomic Energy Commission. He has some interesting comments to make as to how inefficiently our money is being spent which in turn contributes directly to the scarcity of critical materials that we need to properly operate our electric system.

Los Alamos is a self-contained town built by the Government which might be considered an example of a socialistic community since the Government owns all the property, rents the houses to the workers, leases out and controls the businesses and decides how many are to be engaged in them, etc. For example, there is only one drug store, one theater, etc., in a town of about 10,000 people.

Mr. Sawvel was particularly interested in the inefficiency and waste in the spending of our money and the effect of such wastefulness on making critical material scarce. It appeared to him that it was not necessary to spend $3 or $4 where $1 would do the work.

Most of the construction work, said Mr. Sawvel, is done on a cost-plus basis or the equivalent which means the higher the cost the more profit to the contractor and other interested parties. One impressive example that demonstrates this is the size of wire used for secondaries to serve the one-story duplexes having four or five rooms in each half. These duplexes could very easily have been served with no larger than No. 4 secondary wires but since this size wire would not make the cost (and, therefore, the profit to the contractors) high enough, 4/0 secondaries (the size wire that would ordinarily be used to serve factories or large commercial buildings in business areas) were installed. This means that four times as much copper was used as was actually necessary.

Another example is that someone initially conceived the idea that it would be reasonable to expect the occupants of the homes to pay for the electricity. As a result, a single entrance switch and meter were installed on each duplex. Then attention was called to the fact that each side of the duplexes should have a meter and entrance switch of its own, but since this little point had been overlooked it was next decided that the Government would just furnish the electricity free to all occupants of the houses. This means that there are hundreds of meters, meter bases, etc., not being used and just standing there idle. When we have a hard time obtaining meters and copper wire, we should keep some of these reasons in mind, for if these examples are multiplied many times—to allow for all the other Government installations elsewhere—it can easily be seen why our taxes are so high and why the defense program costs so much.

We read from time to time that no further curtailment in expenditures can be made without hindering the defense program, but the above evidence points to the contrary. Another example of wastefulness in connection with Government expenditures is the hospital being built in Los Alamos. The person who took Mr. Sawvel through Los Alamos mentioned that this hospital that is being constructed to serve approximately 10,000 people would cost about $3,500,000, to which Mr. Sawvel replied that he thought that seemed to be quite a large hospital for a town of 10,000 people, since with that cost, it must have a capacity of 200 or 300 beds. His guide said, however, that he was very much ashamed to admit that the bed capacity of the hospital was only 60. That represents an expenditure of nearly $60,000 per bed. The guide stated that this was typical of the waste and extravagance and that the only way anything could be done about the situation would be to have some sort of investigation made. Mr. Sawvel says that the foregoing are only typical examples and there are numerous others, the above being an idea of where our money is going and the possibilities of economy.

We all agree that the defense program is necessary but we certainly don't agree that it is necessary to spend $3 or $4 where $1 will do the job.

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., February 25, 1952.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States, Washington, D. C.*

DEAR MR. BORDEN: On January 17 you asked for our comments on an article in the attached December 1951 issue of the Co-op Power News. The article quoted the News engineering adviser as to data concerning the community of Los Alamos,

N. Mex., and on the basis of these data reached editorial conclusions reflected in the article's heading: "Some reasons why taxes are high and critical materials are scarce." The key data used in this article are not accurate as quoted and, when corrected, do not support the critical conclusions reached.

The facts on the topics referred to in the article follow:

Los Alamos is a community of almost 13,000 residents (not 10,000). It has two drug stores, two theaters (not one of each as quoted), three supermarkets, and the minimum total of other business services which are required. All are privately operated under contracts let on open bids.

None of the community construction was, as was asserted in the article, on a cost-plus basis. All was accomplished on the basis of open, competitive bids. Permanent community construction began under the Army in 1946, including the present community center and much of the present western area. This construction, as well as all building in the community under the AEC since 1947, has been performed under lump-sum contracts.

Following World War II, the Army erected numbers of prefabricated units and brought to Los Alamos other used units from Army camps. In the first months of AEC early in 1947, used units were also brought from other AEC installations, and there was additional prefabricated construction. During these days, the type of construction referred to was accomplished largely from drawing on war-surplus stocks. Wiring in some instances was slightly larger than required, because such wiring was available in surplus stocks without competing on the open market for items in very scarce civilian supply. The Co-op News text obviously does not refer to these units, since it describes the housing units inspected as being one-story duplexes having four or five rooms on each side. It may be that the text refers to post-1946 permanent housing either in the western area or other areas. There is no oversized wiring in those houses, whether built by Army or AEC contract, both of which conformed with the National Electrical Code.

By Government instruction, architect-engineers at Los Alamos under the AEC have designed according to the National Electrical Code for house wiring and service drops. Single and duplex housing units have three No. 6 wires or three No. 8 wires depending on load and length of service drops. In four-unit buildings three No. 4 wires were used. The largest housing unit is of eight, two-bedroom units (a two-story structure with heater room in basement), and the electric load requires a minimum of three No. 2/0 wires. (No one-story duplexes have larger than No. 6 and they do not use No. 4/0 as stated in the article.)

The Government does not furnish electricity free to any resident. All installed meters are used for sample meter readings on which the basis of block rates for utilities are established and charged to all consumers. In some housing since 1948 only meter bases were installed. The AEC goal is to meter all power and light and to bill on the basis of adjusted geographical utility rates and consumption factors. As we move closer to this goal, the previously-installed bases will be used. Accordingly, an equivalent number of bases will not then have to be acquired at that time.

Other facts in the paragraph referring to the "hospital" are also entirely inaccurate. This is not a "hospital" as such; it is a medical center which includes hospital facilities for industrial and community use, a public health and sanitation department, an industrial health department, a public health nurses department, the health pass ward of eight beds, and various out-patient clinics and ancillary services. Out-patient clinics consist of an obstetric clinic, a pediatrics clinic, internal-medicine clinic, eye-ear-nose-throat clinic, surgical clinic, general medicine clinic, and dental clinic. Provided in each clinic is office space for doctors (or dentists), as Los Alamos does not have private practitioners with offices in various buildings throughout the community. Los Alamos has no other community facilities which provide any public health service in addition to those included in the Los Alamos Medical Center.

Many other factors bear on the size of the medical center. Los Alamos is isolated and cannot, in emergencies, call on other nearby hospitals and doctors. The town has a large dormitory population which, in the eevnt of illness among single persons, frequently requires hospital care. The average age of the residents is such that more than 50 percent of the women are in the child-bearing age.

The formula established under Public Law 725, Hospital Survey and Construction Act of August 13, 1946, and the Lanham Act for number of beds versus population was the guide at Los Alamos in construction of the hospital. Total projected population used was 14,500 and with an adjusted figure of 5.6 beds per thousand, a figure of 80.2 general hospital beds was arrived at.

Other beds are normally required for special fields, but only four were added at Los Alamos for this purpose. The medical center has 84 beds under the present arrangement to care for the normal needs of its community. Bearing in mind the nature of the project and its isolation, it is essential that the center be prepared additionally to handle emergency peak loads. By a few shifts in the present arrangement, the center can quickly provide 110 beds. By making more intensive use of all space in major emergencies, the center can provide bed space for many additional patients. (The Co-op News reported the center had only 60 beds.)

As to cost of the medical center, the present total estimate is $2,726,000 (not $3,500,000) for a total gross area of 105,322 square feet. Gross area for hospital use (including some partially for nonhospital use) is 86,743 square feet, or 82.36 percent of total area.

The cost of gross area devoted to the hospital is $2,245,134. Without reckoning the value or the cost of space necessarily made available for major emergency peak loads, but using the 84-bed figure, the total cost per bed is $26,727. (The Co-op News reported a cost of $60,000 per bed.)

Should you have any further questions on the above information, we shall be happy to discuss them with you.

Sincerely yours,

M. W. BOYER, *General Manager.*

Enclosure: December 1951 issue Co-Op Power News.

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## CONDEMNED SHACKS

SANTA FE NEW MEXICAN,
THE NEW MEXICAN, INC., PUBLISHERS,
*Santa Fe, N. Mex., April 26, 1950.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Building,*
*Capitol Building, Washington, D. C.*

DEAR SENATOR MCMAHON: Many thanks for your letter of April 19. All of us here in Santa Fe deeply appreciate your interest in this matter, and we sincerely hope something can be done to bring a stop to Los Alamos' flushing its condemned shacks on the Santa Fe countryside. I just learned today from one of the State police commissioners that two of these houses had collapsed under their own weights while being moved, and had blocked traffic on our main highway for several hours.

Respectfully and sincerely,

ROBERT MCKINNEY,
*Publisher.*

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*April 19, 1950.*

MR. CARROLL L. WILSON,
*General Manager, Atomic Energy Commission,*
*1901 Constitution Avenue, Washington, D. C.*

DEAR MR. WILSON: I would much appreciate a report on the method of removing old-type theater-of-operations structures from Los Alamos. It is alleged that the removal and resale of the structures to people in the surrounding area creates a dangerous fire hazard.

Perhaps these questions, among others, could be answered in the report: (1) Does it appear that a fire hazard is in fact being created? (2) Does the AEC consider it a part of its responsibility to the surrounding area to assess the fire hazard? (3) Has the AEC considered writing into the contracts for removal a clause requiring that structures sold to private citizens by the contractors be made to conform with safety standards? (4) Does the AEC consider itself obliged by law to follow the present removal procedure? (5) How do the New Mexico fire safety laws bear on the problem? (6) Has the Los Alamos office of the AEC conferred with the New Mexico State government about this matter?

Your assistance will be very much appreciated.

Sincerely yours,

BRIEN MCMAHON,
*Chairman.*

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., May 16, 1950.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: This is in reply to your April 19 letter in which you requested a report on the method of removing certain obsolete structures from Los Alamos.

To develop an adequate site on which to locate housing needed for personnel at Los Alamos, it became necessary to clear an old town-site area which contained 74 miscellaneous wartime structures. These included 40 plywood hutments, 12 Army barracks, 2 latrines, and 20 miscellaneous frame structures, huts, and storage sheds.

The buildings which have been demolished or removed are frame or prefabricated structures built during the war for temporary use only. Some of the less dilapidated structures did not conform to our minimum housing standards and further, rehabilitation and maintenance-operating costs required to maintain them as satisfactory rental properties would have been prohibitive. However, some of these structures were considered as economical investments by farmers and ranchers who either could use them as open storage, apple houses, miscellaneous farm buildings, or convert them into homes at a very low initial-capital outlay. Accordingly, invitations to bid were published for the entire removal, disposal, site clearance, and restoration of the whole area. On December 19, 1949, the contract, involving a payment of $3,235 to the contractor by the United States Atomic Energy Commission, was awarded to Robert Nurseries, Inc., and Winslow & McMillon, post office box 726, Los Alamos, N. Mex. The subcontractor for demolition and hauling is Mr. Bob Richardson.

The more decrepit structures have been demolished on the site by the contractor. Others in better condition have been sold as is, while still others have been rebuilt and sold. Such decisions are made at the discretion of the contractor.

We are not aware of any fire hazard having been created, notwithstanding the unsupported charge in the Santa Fe New Mexican that there are fire hazards. Frame construction is the rule in the United States and is permitted and followed widely under the State of New Mexico building codes.

The degree of fire hazard inherent in those structures reused as homes would, of course, depend upon the nature of the required remodeling. Proper wiring, stove location and flues, and use of fire-resistant inside walls would undoubtedly increase the unit's resistance to fire.

In answer to your specific questions:

1. So far as our Office of Santa Fe Operations is aware, no unusual fire hazard is being created by the use of these structures as remodeled homes or as farm outbuildings.

2. We do not consider it a part of our responsibility to assess the fire hazard of buildings outside our project areas. This is considered to be a responsibility of State and local authorities.

3. It is our belief that conformance with safety standards is a responsibility of the contractor, broker, or buyer, and that enforcement is a responsibility of local authority. Our contracts do not have such a clause.

4. We believe that the present procedure utilized by the Santa Fe Operations Office is authorized by law, and that this method is in the interest of the Government.

5. There are no known State restrictions on the reuse of these buildings. New Mexico has a State building code which is based on the uniform building code of the Pacific conference. Frame construction is permitted. Securing conformance with the State building code outside our area is not within the province of the Commission.

6. We have not conferred with the State government on this matter.

Should you have further questions, we shall be most happy to discuss them.

Sincerely yours,

C. SHUGG,
(For CARROLL L. WILSON, *General Manager*).

## A SOUVENIR CASE

STATEMENT OF SENATOR BRIEN MCMAHON, CHAIRMAN, JOINT COMMITTEE ON ATOMIC ENERGY, SEPTEMBER 24, 1951

I have been informed that two chunks of normal uranium were found in Dalhart, Tex.

According to my information, these chunks were removed from Los Alamos, N. Mex., as souvenirs just at the end of the last war, while the Army had control of atomic energy. The chunks are made of ordinary uranium, not refined to the point where it could be used in a bomb.

I am informed further that Army accountability for materials during the hectic wartime period was on a ton-lot basis. Today, of course, the Atomic Energy Commission accounts for materials on the basis of tiny fractions of a pound.

The Army records covering the period when the uranium chunks were removed have been turned over to the Commission, which took charge in January 1947. I have therefore asked the Commission to make public a statement of the facts so far as can be determined from Army records and so far as security permits.

Senator Clinton Anderson, a member of the Joint Committee on Atomic Energy, is in New Mexico now, and for that reason I have asked him to visit Los Alamos and to ascertain all the facts obtainable.

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UNITED STATES ATOMIC ENERGY COMMISSION,
SANTA FE OPERATIONS OFFICE,
*Los Alamos, N. Mex., September 26, 1951.*

(A partial transcript of a press conference at Los Alamos Wednesday, September, 26. Present were: Senator Clinton Anderson, Manager C. L. Tyler, LASL Director Norris Bradbury, and other AEC and LASL officials; and for the press: Everett, of the Los Alamos Herald, Bob Zimmerman and Mary Lou Lyon, of the Santa Fe New Mexican, and Bob Porton, of Station KRSN.)

Senator ANDERSON. No reporter, no one not connected with the project, could get into Los Alamos at the time (1943–45). Not even a Member of Congress. We all left it alone; regarded it as a closed situation, and, therefore, I am assuming that when they used material of this nature, they treated it a little differently than it is now treated. Therefore, knowing it is pre-Alamogordo and material handled prior to the adoption of the Atomic Energy Act, I am not as concerned and I am sure the joint committee will not be as concerned. I don't say I am not worried about the disappearance of Government property—anyone would be—but this is Government property that might be worth from $300 to $500, and the larger chunk, twice that much. The two of them don't come up to the theft of a second-hand automobile. While we would be alarmed at the theft of a second-hand automobile, it happens right along, and no one gets excited about it, and that is about as important as this situation is. It was unclassified material and it had no great secret value and, so far as I know, there was nothing combined with it to make it of value to another nation. I hope, Captain Tyler, you will correct me if I go off on too bad a limb, but it is my feeling about it, at least.

TYLER. I think you have explained it very thoroughly.

HERALD. Have you been able to establish from information given you by Army records as to exactly when the material did disappear—early or late in the 1943–46 period?

Senator ANDERSON. I don't want to be critical of Army records. They are available to me. However, I haven't had a chance to delve into them, but I know they will reveal there wasn't careful accountability of the materials that were headed for salvage in the same meticulous methods they are accounted for now, and one of the reasons is that some of the uranium used in the experiments was reduced to dust, and therefore you wouldn't be able to account for it. This particular chunk wasn't reduced to dust and went to the salvage pile in pretty good shape. It was quite different from what takes place now, when you see the AEC testing a new type of weapon or material, they work with extreme caution in disposing of materials.

When I went out to Las Vegas with Dr. Bradbury last January or February, I was led to believe some of their experiments might not click, but those I saw did pretty well.

There is a vast difference between accounting for material under war circumstances and those today, and I am not going to be critical of the Army's method of accountability. Not knowing whether atomic bombs were ever going to work, I think they can be excused if they were lax in handling used raw material.

HERALD. What do you mean "used"? Is it no longer of any value?

Senator ANDERSON. Oh no, the uranium can be salvaged and used again, and the Army knew this, but they were in a hurry to try to get these bombs perfected and I can understand the Army sort of shoving aside pieces like that with which they had experimented and taking a new chunk for the next experiment rather than sending them back when the facilities were somewhat limited and not knowing how careful they needed to be with this material.

HERALD. Does any record show how much rare or critical material vanished during that time?

Senator ANDERSON. I don't think a couple hundred pounds of that material would be regarded as rare materials. I was just checking some reports (Smyth report) where they reported how they were putting out 500 pounds a day and the price had dropped to $22. We count our factory output in automobiles today in new cars and not in how many used cars are on the market. The Army was counting on 500 pounds of new material and did not concern itself with used materials.

It would have saved the Government money, I agree, and it should have been done and probably it would be easy to work up quite a case for the Army officer who did not do it. But, his problem was to produce a bomb as quickly and as early as it could be done.

HERALD. Is there much of this material floating around the country? Is there any way to tell?

Senator ANDERSON. There is no way I can tell; however, I doubt it.

HERALD. Isn't there any reason to believe there might be more?

ANDERSON. So far as I know, I wouldn't be astonished if there may be. Don't you think so, Captain Tyler?

TYLER. I think it is not improbable.

PORTON. Have any cases turned up where there was natural uranium taken? Has it come to the attention of the AEC?

Senator ANDERSON. No; not to the attention of the AEC. The AEC might be better qualified to answer that question. Let me qualify that by saying I mean after the passage of the Atomic Energy Act and a reasonable period for the return of the material. After the act was passed, a great deal was returned to the Commission. Some of it returned without the people putting their names or return addresses. They sent it through the mail—it wasn't a crime particularly to have a chunk of used uranium in your possession at that time.

HERALD. Were there any pieces as large as this?

TYLER. I don't know.

SMITH. I think there is a piece of this order we did find. It was used. A man had some. He returned it.

ELLIOTT. It might be assumed that if a person had taken a very heavy piece, he would have dumped it. It would have been too large to send through the mails.

Senator ANDERSON. Of course, that is what might have happened with this piece. It is the problem of the FBI, and it is my feeling the FBI will come through with a reasonably good report.

ZIMMERMAN. Have you had any word from the FBI?

Senator ANDERSON. I think the FBI would tell me if I asked them, but I haven't asked them. It is not within my field. It would not touch the field of the Joint Congressional Committee on Atomic Energy.

ZIMMERMAN. There was lot of souvenir hunting—some photostats and blueprints and while you don't criticize the Army for not accounting for salvage material, you can criticize them for the fact that it was not too difficult to take.

Senator ANDERSON. I would like to see them (the Army) more careful. I can remember a friend of mine who finally got a patent on a device. He showed it around to any number of people, and if they had been alert they could have stolen his idea. I don't know if that explains anything, but I do think there was laxity and I regret there was laxity. All I can say is that since the passage of the Atomic Energy Act, the creation of the Atomic Energy Commission of standards of conduct, those things have stopped.

HERALD. There are at present no known instances of classified materials disappearing since the Atomic Energy Commission took over?

Senator ANDERSON. I would have to give you a political example first. If somebody came to me and asked if I would support a certain man, I could very easily

say "Yes" and they could go down the list till they came to a name where I would say "No." I think it is much simpler if I said I didn't desire to answer in the first place.

If you ask me today for any known instances, I could very easily say "No" and if there should develop an instance where something disappeared temporarily and again put the question to me if there was any disappearance of materials, I would feel like hedging. Well, I can say to you I know of nothing at this time. I am going to be awful careful about answering that question in the future.

I think the tests are sufficiently careful and sufficiently effective now so that you couldn't possibly have the type of disappearance you had then.

HERALD. Have you made any inquiry as to whether the shape of this piece could be of any information to an unauthorized person?

Senator ANDERSON. I think it is a question Dr. Bradbury could answer.

BRADBURY. Not the least. If it were, it wouldn't be on the table in front of you.

Senator ANDERSON. I think they started to put the piece away prior to the time you entered the room, but it was left here because there is no significance whatsoever to the shape.

HERALD. Dr. Bradbury, could you enlighten us on the use of this piece?

BRADBURY. No, because I would have to explain the program, and it was a part of a classified program.

HERALD. The materials are not classified, are they?

TYLER. There was no AEC classification on it at that time.

ZIMMERMAN. Why is the paper on the table? Will the uranium burn it? According to the publicity, a woman's dress was burned by sparks emanating from it. What will you do with it?

Senator ANDERSON. When the FBI finishes investigation of this piece and the other piece, they will move it to routine salvage. There is nothing unusual about these two chunks.

HERALD. Couldn't you say it is not classified material? Don't you need a license to have classified material under the Atomic Energy Commission Act to use it? It is used in industry.

TYLER. We use it in the shape we get it. Sometimes we machine it, sometimes we cast it, and sometimes we press it in the shape you see it in.

SMITH. The thing that worries you is the report that you got that when you strike it it gives off sparks. They said the spark flew off and burned a dress. They got some stories mixed up, because when you strike it it gives off a spark just like a flint in a lighter [got up to demonstrate].

HERALD. I assume the laboratory is not responsible for such accidents as the woman's dress.

SMITH. No.

Senator ANDERSON. Not burning a hole [taking out a handkerchief]. I worried when I read that story. (Senator Anderson held a handkerchief over half a dollar and had Mr. Zimmerman hold a lighted cigarette firmly against it, to demonstrate that when a piece of material is held firmly against metal, the metal will absorb the heat and the material will not burn.)

When I heard that the uranium had burned through the table I was surprised.

BRADBURY. This piece of uranium is perfectly harmless material.

ZIMMERMAN. Is it produced by industry?

TYLER. It is produced by a private firm under contract to the Atomic Energy Commission. There is no security involved.

ZIMMERMAN. Hypothetically, it could have come from somewhere else than Los Alamos?

TYLER. Hypothetically, yes, but it is fairly safe to assume it came from Los Alamos.

PORTON. Has the investigation by the FBI turned up any pertinent information?

TYLER. We haven't had any report up to this time. Normally we get a report after they complete their investigation, so that we are kept informed. Until we get that report, it is something in the hands of the Department of Justice.

Senator ANDERSON. I don't think this is going to end up in any unsolved mystery. I think it is going to be determined definitely this came from up here, and the difficulty is one of tracing it.

HERALD. Carrying that a step further, is it your assumption that prosecution will result?

Senator ANDERSON. I don't know. If the district attorney would think he had enough motivation for prosecuting. I don't know.

HERALD. What is your personal feeling about whether it is serious or not?

Senator ANDERSON. My feeling is that any time anyone steals a thousand dollars from the Government it is serious.

HERALD. Would you use the term "steal" in connection with this; not "taking a souvenir"?

Senator ANDERSON. I saw someone one time taking a piece of rock from Carlsbad Caverns. The rule is that you can't take any of that rock. There is enough to last a thousand years, but the Parks Service had to make a rule. I didn't turn him in. If this person was in about the same category, I am not so sure I would worry about prosecution. I do think it is serious, but I think the United States attorney would decide about prosecution.

Anytime you take a thousand dollars worth of stuff it is serious. The person may not have taken them as casual souvenirs.

HERALD. Do you have any reason to believe that both pieces were actually taken by the same person?

Senator ANDERSON. I don't know.

HERALD. Do you think both pieces could have been from the same experiment?

TYLER. Both pieces could not have come from the same over-all batch.

ELLIOTT. That does not mean that they may not have come from the same salvage pile.

HERALD. Assuming that the piece was taken in 1943, which was pre-Alamogordo, would not the fact at that time that a large chunk of uranium had been removed from this secret project at Los Alamos been of some significance to an alert foreign agent?

Senator ANDERSON. My theory is that it went into the salvage pile between 43–45 and that after Los Alamos became more open, someone went over to the salvage pile at the time he left Los Alamos and took it for a souvenir. My theory is that it went out after the Alamogordo period.

ZIMMERMAN. Is there any evidence to support your theory?

Senator ANDERSON. Merely my own experience up here at that particular time.

ZIMMERMAN. Granting it is a good theory, assuming that it went out in 1943, would a chunk of uranium known to have come from this secret project in 1943, would that have been of significance to an alert person interested in knowing what was going on up here?

Senator ANDERSON. If it were up to me personally, I would answer "Yes". If it went out in 1943, because at that time I thought it was a solar radiation laboratory. We knew that great chunks of machinery were being hauled up this hill. Colonel Robbins had become Major General Robbins. He had been under me when I was in charge of the field force at Salt Lake. He had been my engineer at Portland. We were extremely good friends, and one day I said to him—I knew he was in general charge of the Manhattan project, whatever that was, I didn't know, but I had gotten the tip they were going to try to devise a great lens up here that you could turn it on a country and burn up its crops—so, in talking to General Robbins one day when I was a member of the General Appropriations Committee of the House, and had had the opportunity to go through the various secret laboratories, I said, "When are you going to tell me what is going on at Los Alamos?" He gave me a strange surly look. I said, "How big a bomb are they going to make up there", and he said "What do you know about the project? If you ever mention 'bomb' in connection with that project, you will be locked up for the duration of the war." His face was livid. If someone had brought me that piece in 1943, it would have been very interesting to me because it would have changed my mind about everything going on here, and I assume it would have been interesting to a foreign agent. The same thing happened here that happened to a pair of field glasses that were liberated from a German submarine. They were given to me by a friend who said he was tired of having the great ugly things in his house. I know they were, well, I wouldn't say stolen, but they were liberated and someone liberated a chunk of uranium. After that, they passed the AEC Act. When the FBI finishes their investigation, they will find that is what happened here.

HERALD. If it did go out in 1943–44?

SMITH. In 1943 it would have been a horrible breach. In 1944 it couldn't have helped the Russians because Fuchs was here at that time.

TYLER. It was more important if it had gone out in 1943 and didn't show up at all. The fact that it did show up means that it obviously wasn't of use to anyone.

Senator ANDERSON. If it had gone out in 1943, it would have gone far enough for someone to make some tests.

BRADBURY. If it had gone out in 1943 it could have been a very serious matter. In 1951 it is merely of academic interest; the fact is that uranium has been known to the world for 6 years.

Senator ANDERSON. That particular piece hasn't been used in an experiment for more than 6 years. In 1943 it would have been of great interest; in 1944 of less interest, in 1945 there was none.

HERALD. If in 1943 a physicist of some capability got hold of that piece of metal and determined it was a piece of uranium, providing he knew it came from Los Alamos, would it be logical for him to assume an atomic bomb was being experimented with here?

BRADBURY. He would have been entitled to think that. He would not have guessed it was an atomic bomb. He might have guessed nuclear energy.

Senator ANDERSON. At that time they were making uranium in Germany for the purpose of power.

BRADBURY. We would have been quite interested to know more of the details of German action.

ELLIOTT. I think it is the assumption of the Senator and of Mr. Tyler and Dr. Bradbury that the question you are asking is a very hypothetical case, but not this case.

Senator ANDERSON. I base my reply on my knowledge of how hard it was to get anything out of here during the war. I had a personal experience of trying to get something out of this place and soon found out how difficult it was, and know if it was so difficult, to get a 50-pound chunk of uranium out would have been practically impossible.

HERALD. What did you try to get out?

Senator ANDERSON. Some of the clothing of a dead——

HERALD. I am sorry.

SMITH. At that time we had censorship of mail. All packages had to be examined and sealed by the Army post office. You mailed your letters open. You took no vacations. You were not permitted to have leave. Military personnel couldn't have their families here and the few people who lived here were not permitted to leave. The people who left were not permitted to come back.

Senator ANDERSON. They were examined meticulously when they left.

ZIMMERMAN. When was that security released?

SMITH. It was a gradual relinquishment. Even as late as when the boys were leaving in 1945 and 1946 they were still examining foot lockers. You still had to check packages up until the time we put the pass office in the tech area. There was a lessening from late 1945 on, after the Japanese surrender, after the dropping of the bomb.

ZIMMERMAN. If I were a soldier transferring to another place in 1945, would my possessions have been examined?

Senator ANDERSON. They were examined until after the Japanese Treaty.

SMITH. There were so few soldiers leaving—and then we knew where they were being sent—to the Pacific.

ZIMMERMAN. If this did leave between 1943 and 1945, there was a laxity of security that allowed it to go. It must have been smuggled out.

SMITH. I do not have any guaranty that any system is foolproof.

TYLER. It does not seem that it was smuggled out in 1943 and 1944. Most probably after 1945.

ELLIOTT. If it went out at that time (1943–45), it was an evasion of security, not a laxity of security.

Senator ANDERSON. I am going to go back to my theory that it disappeared after the conclusion of the Japanese War. If the other theory shows up, we will probably be back up here again.

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## A CONTRACT COMPLAINT

JANUARY 10, 1951.

Memorandum for Senator McMahon.
From: Bill Borden.
Subject: [Corporation name withheld].

With regard to the correspondence from the above corporation, in which they allege that the specifications for certain equipment are so severe as to confine bidders to one company only, Ev Hollis [AEC general counsel] consulted Los Alamos. The technical people out there have gone over the claim very carefully. They admit that the specifications are very high indeed—as is typical of Los

Alamos scientists. However, they also assert that the specifications are not improper in any way; that, on the contrary, they are necessary and that they do not limit bids to one company.

Hollis points out that he, as a non-technical man, is not competent personally to review the disputed facts. But he did raise the matter with Los Alamos and did get a comprehensive examination into the problem, as well as a flat guaranty from several of the technical people that the specifications are both necessary and fair.

W. L. B.

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## LAS VEGAS MINERAL RIGHTS

OCTOBER 9, 1951.

Memorandum for the files.
From: John S. Walker, Joint Committee Staff.
Subject: New construction at the atomic test site, Las Vegas bombing and gunnery range.

In a recent budget summary the figure of $424,000 was given for extinguishing mineral and grazing rights for new construction at the Nevada atomic test site.

At the request of Mr. Borden, I contacted Mr. Harold Price, AEC Deputy General Counsel, on the details of these expenses. The figure of $424,000, according to Mr. Price, was a preliminary estimate which was much too high. The actual figure is less than one-third of this amount and is computed as follows:

(*a*) There are 17 mining rights, totaling $125,035, of which 16 are small, ranging from $100 to $10,000.

(*b*) There is one large claim valued at $105,000, of which $65,000 has already been paid by the Air Force for the use of the land for the duration of the emergency and 6 months beyond. The remainder of the claim has not been paid and will not be paid until the end of that period, when the AEC recognizes that further action would have to be taken. This is the only land that will not be acquired in fee.

(*c*) There are only two grazing rights, totaling $74,000; one of these is a considerable claim for a large acreage, and the AEC's information is that more than the claim amount has been expended by the owners for the development of the property for grazing rights, water holes, and ranch facilities.

(*d*) There are administrative expenses of the Corps of Engineers in connection with the acquisition in the neighborhood of approximately $10,000. Total expenditures for acquisitions of all of the requested land, exclusive of the fee interest for the one mineral right, are approximately $112,000. The claims have either been paid or are in the process of being paid. Everyone is off the land.

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In accordance with the usual practice the AEC turns its requests over to the Corps of Engineers and the Corps of Engineers handles the acquisition of property.

Query: Should anything further be done in checking into the AEC's policing of the Corps of Engineers as its agent? This problem, however, is one general to any acquisition of land for the AEC rather than unique to this specific case.

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## ANOTHER CONTRACT COMPLAINT

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., May 11, 1951.*

MR. WILLIAM L. BORDEN,
*Executive Director, Joint Congressional Committee on Atomic Energy,*
*Washington 25, D. C.*

DEAR MR. BORDEN: This refers to a telephone call from Mr. Walter Hamilton to Mr. Leonard Reichle on May 9, 1951, requesting a full report on the award by the Idaho operations office of a contract for radio equipment, with particular reference to the protest of the Link Radio Corp.

The radio equipment in question is that necessary for the establishment of mobile radiotelephone communications systems between the different technical

operations areas at the testing station and between the testing station and Idaho Falls, primarily for security purposes.

On January 26, 1951, an invitation to bid was distributed by the Idaho operations office to the major equipment manufacturers of the type of radio equipment needed, including Motorola, Inc., RCA, General Electric Co., Link Radio Corp., and others. Sealed bids were opened on February 26 at which time it was found that only Motorola and Link Radio Corp. had submitted bids.

The bid received from Motorola promised delivery in 7 months at $58,663.89. Although the equipment proposed was in substantial conformity to specifications on all important points, neither price nor delivery schedule were considered acceptable and, accordingly, the Motorola bid was rejected.

The bid received from Link promised delivery of the complete equipment in 120 days at a price of $41,585. The delivery schedule was not considered particularly good but it was felt that through negotiation the delivery time could be improved. The Link bid, however, was unacceptable on the basis that the equipment which they proposed to furnish did not meet our specifications.

Relection of the Link bid was based in large part on the apparent inability of their equipment to meet specification requirements as to receiver selectivity, sensitivity, and response to undesired signals. In fact, even the advertised specifications furnished by Link as representing their performance claims for the proposed type of equipment fell short of meeting the advertised requirements on these points. Further, information and data received from the United States Forest Service Laboratory at Portland, Oreg., indicated that in tests conducted by that office (in January of this year) equipment of the same type and model (2210), which Link proposed to furnish under this invitation, did not meet the Forest Service requirements, which were substantially equal to our specifications on the points described above.

However, since Mr. Wunderlich, general manager of Link Radio Corp., had indicated in his bid that Link's equipment would, without exception, meet our specifications on all points, he was invited by letter on March 9, 1951, to submit substantiating data setting forth the actual performance characteristics of such equipment.

In his reply of March 14, the bidder admitted that "in checking further into the requirements of the specifications, we find that the spurious response of the receiver of the 2210 will not quite meet your specifications," and suggested that as an alternate the Commission consider a new model of Link equipment which was then undergoing preproduction testing. He further indicated that "This unit will not be available until about 30 to 45 days; however, if you desire at a later date further information regarding more specific details, we will be glad to furnish them to you."

Upon further inquiry to Link, it was found that the claims made for the new line of equipment were based on laboratory-design data and not upon field testing of production-line equipment. The new equipment had not at that time been placed in production. Based on this information and due to the critical need of a reliable radio communications system of proved performance and known dependability under field conditions, it was determined that the Link Radio alternate was not acceptable.

Along with the announcements on March 20 that all bids had been rejected, both Link Radio Corp. and Motorola, Inc., as well as other manufacturers, were invited to submit new proposals, as a basis for negotiation and, in the case of Link, to furnish additional data which might establish the performance characteristics of their new line of equipment.

In response to this invitation, the General Electric Co., Motorola, and RCA sent representatives to the Idaho operations office, discussed requirements and submitted proposals for equipment which conformed to specifications on all major requirements. Mr. Wunderlich of Link replied in a letter dated March 22, 1951, that he did not consider that our requirements involved any great problem with respect to receiver selectivity and rejection of interference resulting from spurious responses of receivers, and suggested use of their older-type equipment. He stated, "This is something we could give you right away, and if the equipment is not entirely satisfactory after, say, 3 or 4 months of use, we would agree to replace it with the model 2750," that is, the new and as yet untried model.

From these new proposals the Commission selected that of the General Electric Co. to supply the complete system in 55 calendar days after award of contract at a price of $50,312 plus Federal excise tax. This compared to the RCA proposal to furnish equipment in 150 days at approximately $63,000 and with the

proposal of Motorola, which was substantially unchanged from their original proposal mentioned above.

On the basis of the above facts, it was determined that the interest of the Government would best be served by the acceptance of the higher proposal of General Electric covering equipment of known and demonstrated dependability. Link Radio Corp. has been so advised.

Sincerely yours,

L. R. HAFSTAD,
*Director, Division of Reactor Development.*

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## SOME RAW MATERIALS PROPOSALS

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., January 23, 1952.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: This is in answer to your request of January 14, 1952, for our comments on a letter from Mr. John E. Kelly, together with a letter from Mr. Charles F. Willis, concerning suggestions for increasing the output of radioactive ores in the western United States.

Mr. Kelly suggests increasing the price for uranium ores. Mr. Willis recommends a 30-percent price increase for ores having a uranium oxide content of 0.2 percent and higher and a 100-percent increase for ores containing from 0.1 to 0.2 percent $U_3O_8$. He also recommends increasing the trucking allowance, more favorable conditions for prospecting and mining in the Navajo Indian Reservation, and provision of ore-buying facilities in central and southern Arizona.

As you know, on March 1, 1951, the Commission increased uranium oxide prices for western ores up to 300 percent for low-grade ores and 180 percent for average grade ores. In addition it established a bonus for initial production which doubles the base price for the first 10,000 pounds of $U_3O_8$ produced from any new mine. As a result of the price increase and the development bonus, in the case of new production, the price per pound for $U_3O_8$ in ores assaying 0.1 percent is now six times what it was a year ago and for ores assaying 0.2 percent three and a half times. In establishing these new rates we went far beyond what was necessary to compensate for any applicable rise in production costs, since we believed such steps were required in order to increase the incentive for prospecting and developing of new mines to the extent necessary for our program.

In establishing the bonus for initial production we had in mind the view expressed by Mr. Kelly that the small miner plays a very important part in finding and opening up new deposits. The amount of this bonus a new mine may receive ranges from $15,000 to $35,000, depending upon the grade of ore produced.

Reports from the field indicate that the miners and the mining industry are almost universally satisfied with the present price schedules and that uranium mining is highly profitable. Also, there is reason to believe that domestic prospecting for uranium deposits is now more active than any other type of prospecting. You are aware from the reports submitted to the Joint Committee that production of uranium ore in the western States has been increasing at a very rapid rate. We believe that this is tangible evidence of the effectiveness of present price schedules.

With regard to an increase in the haulage allowance, it has not been our purpose to reimburse the miner for the cost of trucking, but to provide an allowance which would take care of a large part of this cost. We want the miner to bear a part of the trucking cost. It is essential that there be an incentive for clean mining and a penalty for shipping an unnecessary amount of waste rock, because of the high cost of subsequent processing. Since the same haulage allowance is paid for low-grade ore, as for high-grade ore, this incentive already is at a minimum and it would be further reduced by increasing the haulage allowance.

As an alternative approach to the same problem, we have felt that more effective help to uranium producers could be offered by the construction and improvement of access roads. On the basis of our recommendations, nearly 1,000 miles of such roads in Colorado, Utah, Arizona, and New Mexico are in process of construction at a cost to the Federal Government of approximately $1,000,000.

This is a continuing program, and consideration is constantly being given to access road improvement wherever the present and potential uranium ore reserves seem to justify such action.

We agree with Mr. Willis's suggestion that more liberal regulations regarding mining and prospecting on the Navajo Indian Reservation are desirable. As a result of our efforts, prospecting and mining in the Navajo Indian Reservation have been greatly expanded, and we understand that some further desirable changes in the leasing regulations may be anounced soon. However, it is likely that the tribal council and the Bureau of Indian Affairs will continue the policy of preferential employment for the Navajos on any operations within the Reservation.

With respect to local outlets for ore, we have attempted to provide ore-buying stations conveniently located to producing areas as soon as production in an area justified such action. Because of the high cost of establishing and operating such stations there must be an assurance of at least a small amount of continuing production.

In conclusion, we would like to say that our ore-buying schedules and the problems of the uranium miner are under continuous review, and we have attempted to make revisions and develop assistance programs whenever indicated.

We are returning herewith the letters of Mr. Kelly and Mr. Willis and hope you will express to them our appreciation of their suggestions and their interest in our program.

Sincerely yours,

JESSE C. JOHNSON,
*Director, Division of Raw Materials.*

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## A RAW-MATERIALS PROBLEM

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., November 21, 1951.*

Mr. EDWARD HELLER,
*Joint Committee on Atomic Energy,*
*United States Capitol, Washington, D. C.*

DEAR MR. HELLER: Enclosed herewith is a copy of a memorandum to Frank H. MacPherson from Paul B. Martin showing the relations between the Navajo Indian Tribe and the AEC, as requested during your recent visit to Grand Junction.

Very truly yours,

M. CLIFFORD SMITH, Jr.,
For GEO. G. GALLAGHER,
*Assistant Director, Division of Raw Materials.*

NOVEMBER 13, 1951.

To: Frank H. MacPherson, Manager, CRMO.
From: Paul B. Martin, counsel.
Subject: Relations between the Navajo Indian Tribe, area office of the Navajo Indian Reservation, and the United States Atomic Energy Commission.

Relations between this office and the Navajo Tribe commenced on or about September 10, 1949, when Mr. A. G. Harper, area superintendent of the Navajo Reservation, contacted this office relative to information concerning the uranium industry. At that time copies of our domestic uranium program circulars and other material relative to the uranium program in the Colorado Plateau were sent to Mr. Harper.

Mr. Harper visited this office on September 13, 1949, and spoke to Dr. Fetzer, Mr. McGrath, and others relative to different phases of the uranium industry in the Colorado Plateau. At the time of Mr. Harper's visit here, he stated that he would appreciate any assistance that this office could give to the Navajo Tribe in the development of uranium resources on tribal lands. We advised Mr. Harper that we stood ready at any time to give him such assistance as we could in this matter.

On October 7, 1949, Mr. Fister, chief, economic development office of the Navajo Indian Reservation, visited this office relative to the general uranium program on the Navajo Indian Reservation and the specific subject of the type of mining permit to be used in the reservation was reviewed. Our suggestions on this matter were later submitted to him by mail.

In response to a request by Mr. Harper, a meeting was held in his office on November 4, 1949, between Mr. Harper, Mr. Fister, Mr. Tso of the Navajo Indian Council, Dr. Fetzer, Mr. Keiser and Mr. Rove of USGS, and I. The USGS representatives were interested in obtaining permission to perform drilling and exploration work on the reservation. As a result of this meeting, the Navajo Tribal Council withdrew certain lands in the Navajo Reservation, with the provision that the AEC was authorized to permit the USGS or any of its authorized representatives to do prospecting and exploratory drilling and development work for vanadium- and uranium-bearing ores.

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Under authority granted by the Navajo Tribal Council, approved by the Commissioner of Indian Affairs on March 23, 1949, mining permits were issued by the tribe for the purpose of prospecting and mining of minerals on tribal lands. These permits prohibited the holder from assigning the permits by an operating agreement or otherwise, of any portions of land covered by the permit. Several inquiries were received in this office from white men as to whether or not they could ship and sell such ore in their own names if they were to go in under an oral agreement with the permittee and develop these deposits. The matter was taken up with the administrative office of the Navajo Reservation and we were advised that such ores would have to be mined, shipped, and sold by the Indian. It was apparent that this proviso was discouraging the development of uranium ore deposits in the Indian reservation by interests with sufficient financial and industrial ability. On August 1, 1950, I visited the reservation for the purpose of obtaining the necessary clearance for the drilling program to be conducted by Dr. Fetzer's office, at the request of the chairman of the Navajo Tribal Council to attend a meeting of the advisory committee of the council to aid in making some determination as to what procedure would be followed in the future relative to mining permits. At this meeting I gave the members of the advisory committee as much information as was necessary relative to the procurement program in this area and suggested that they consider amending their license by authorizing issuance of the license to white men as well as Indians, or by amending the license to permit the Navajo who found uranium under such a license either to assign the license or enter into mining agreement with qualified people to develop the deposit. I also suggested that they consider lifting the limit of 960 acres as the maximum amount of land which might be covered by a permit.

I did not remain for the hearings before the advisory committee on the next day but on August 12, 1950, I was informed by telephone that the committee had approved a resolution to authorize the Navajo holding mining permits to enter into mining agreements with and assign certain rights thereunder to responsible individuals desiring to develop ore deposits discovered by the Navajo. The committee also agreed to lift the 960-acre limitation and no definite acreage limitation was placed on the amount of land which could be so held.

On March 23, 1951, this office requested the Navajo Indian Tribe to grant authority to the Commission and its contractors to perform such geological investigations and exploration work for the discovery of uranium ores as the Commission might deem advisable, on any part of the Navajo Indian Reservation for a period of 3 years. This permission was granted by the Navajo Tribe on April 18, 1951, and pursuant to this authority, the Grand Junction Exploration Branch has been conducting geological exploration work on the reservation.

On February 5 and 7 of 1951, an open hearing relative to uranium mining on the Navajo Reservation was conducted at Window Rock. The following persons, at the request of the Navajo Tribal Council, attended this hearing: D. W. Viles of VCA; R. P. Fischer of USGS; Paul B. Martin, CRMO; R. H. Allport, district mining supervisor, Office of Geological Survey, Carlsbad, N. Mex.; Mason W. Rankin, geologist, J. R. Simplot Co., Boise, Idaho; J. W. Hill of USV; Bert W. Dyer, district mining supervisor, Office of Geological Survey, Salt Lake City; George G. Gallagher, ORM, AEC; Blair W. Burwell of Climax Uranium Co., and F. A. Sitton, of Dove Creek, Colo. This meeting was for the purpose of establishing regulations covering prospecting and mining permits and mineral leases for uranium deposits on the Navajo Reservation. A copy of the transcript of proceedings is available in the Office of Mail and Records, CRMO.

In the latter part of August Mr. L. A. Walker and I visited Window Rock pursuant to the regulations previously referred to, and the application of Domestic Uranium Program Circular 6 to uranium mining properties on the Indian Reservation. As a result of this meeting a minimum acreage for mining properties under Circular 6 on the Reservation was established.

The foregoing is a brief summation of the relationship between this office and the Navajo Tribe and area office of the Bureau of Indian Affairs as of today. The position which we have consistently taken in this matter is that the Navajo tribal lands are privately owned lands and our position would be that of an advisory capacity to the Bureau of Indian Affairs and the tribal council at such times as they should seek our advice. We have, undoubtedly, had some influence on the establishment of regulations and procedures for the operation of uranium mineral lands on the Navajo Indian Reservation but have always tried to give such assistance as would be to the benefit of the Navajo Indian Tribe. Our relationship has been very cordial and of benefit to both the Navajo Tribe and the Commission.

Should there be any specific aspect of our relationship on which you desire to have further information, I will be glad to furnish it upon request.

[Dictated but not read.]

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## MINING CLAIMS

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., September 7, 1950.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Washington, D. C.*

DEAR MR. BORDEN: In your telephone conversation with Mr. A. Wells last week you indicated that certain questions had been raised with you by Mr. Heller [of the Joint Committee Staff] concerning action taken by the Commission in connection with mining claims in areas withdrawn from the public domain for Commission use. This is to provide you with information which may be helpful on the points raised with Mr. Heller in the course of his field trip.

The Commission is of the opinion that mining locations made in good faith prior to the withdrawal orders in question should not be challenged when such claims are defective only because "discovery," as specified in the Federal mining laws, was not made prior to the withdrawal order. The Commission is of the opinion that to challenge these claims would adversely affect the Commission's uranium program and in formal action this week authorized a modification of the existing land withdrawal orders, to be worked out in consultation with the Secretary of Interior, for the purpose of eliminating any question concerning the intent behind the withdrawal of lands from the public domain for Commission use. As you know this question has been under consideration by the Commission for some time, and there have been a number of discussions with the Bureau of Land Management and the Bureau of the Budget on the questions involved.

You indicated in your telephone conversation with Mr. Wells that the question had been raised as to what action the Commission had taken in connection with claims staked in withdrawal areas after the effective date of the withdrawal orders and what action had been taken in connection with claims, the boundaries of which had allegedly been shifted. Over a year ago we received a report alleging that one of the claims in the Outlaw Mesa area located by [name withheld] had been located after the effective date of the withdrawal order. We requested the Bureau of Land Management to take appropriate action to advise the locater of the invalidity of his claim and to clear the official records of the claim. The Bureau of Land Management had since followed this procedure in similar cases and we understand has cleared the title to a number of other claims when information has come to its attention that the claim was located after the effective date of the withdrawal orders.

In March of this year we received a report which alleged that the boundaries of the claim in the Outlaw Mesa area, identified as the [name withheld] claim had been shifted since the effective date of the withdrawal order. We immediately discussed this matter with the Bureau of Land Management and requested the Bureau to investigate the alleged movement of mining claim boundaries and markers within the withdrawal areas and to follow the procedure of the Bureau applicable in such cases.

We believe that there is no misunderstanding between the Commission and the Bureau of Land Management on the point that the record should be cleared of any claims which are invalid because of fraud on the part of the locator.

Very truly yours,

GEORGE G. GALLAGHER,
*Acting Manager, Raw Materials Operations.*

SEPTEMBER 8, 1950.

To: Senator McMahon.
From: William L. Borden (staff director).

One of our regular staff inspection trips developed the fact that the Federal Bureau of Land Management recently served invalidation notices upon certain holders of mining claims in Colorado. The first such case pertained to an alleged movement of corner monuments, involving fraud; and the Atomic Energy Commission offered to defray the expenses of prosecution. In other cases, the Bureau of Land Management, using its own funds and without the Commission's knowledge, undertook legal action against claim holders on two grounds: (1) lack of discovery of valuable minerals, and (2) physical area of the claims exceeding the legal limit. These cases evidently do not involve fraud in the ordinary sense of that term.

The Commission, when it learned of the additional invalidation notices, protested to the Bureau of Land Management; and, as a result, action on the cases has been suspended. Discussions between the two agencies are in progress.

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## THE CASE OF DR. "X" (name withheld)

OCTOBER 16, 1951.

To: Bill Borden.
From: Edward L. Heller.
Subject: Dr. "X" (name withheld).

Last July, the Commission signed a contract with the University of "Y" (name withheld) involving certain investigations concerning plutonium ingestion. The principal investigator in this contract was a Dr. "X" (name withheld). The Commission states that they first became suspicious of this contract when Dr. "X" (name withheld) requested a $6,000 advance. This request was refused, since the AEC had not received any notice that the initial allotment for the contract had been spent. The Investigation Branch of the AEC immediately made inquiries, as did the FBI and the University of "Y" (name withheld). The investigators report that Dr. "X" (name withheld) had apparently heard rumors to the effect that the AEC was going to cut back the funds available for this investigation, and that he therefore proceeded to buy truly excessive quantities of laboratory supplies with the funds on hand, requesting an advance for still further purchases. He is reported to have bought large quantities of Crisco, Tide, and hot plates, and similar purchases. Lacking sufficient space in his laboratory for all of these supplies, he began to store them at his home, although he made no effort to conceal the fact that these were university supplies.

After an investigation, the district attorney refused to prosecute, on the grounds that no Federal moneys were involved. All AEC allotments had been accounted for, and there was no evidence that Dr. "X" (name withheld) intended to divert the equipment he purchased for his own use. The Commission investigations group reported that there was no intent to defraud the AEC, but the university dropped Dr. "X" (name withheld) from its staff for administrative incompetence. The university further agreed to reimburse the Commission for any unnecessary purchases made by Dr. "X" (name withheld) and charged against the AEC allotment.

A member of the Biology and Medicine Division made a special trip to survey the status of the research project. He reported that the investigation was in good shape and that in fact much of the work had been done by an assistant of Dr. "X" (name withheld). The AEC has therefore continued the contract until July 1, its normal termination date, with this assistant in charge. No decision has been made as to whether or not the contract will be renewed this July.

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## A PAYMENT IN LIEU OF TAXES

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., August 24, 1950.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: This is to advise you that the Commission, on July 20, 1950, authorized payments in lieu of taxes during the construction phase

of the Argonne National Laboratory equal to the full amount of taxes borne by the land during its last year in private ownership. This will involve payments of approximately $13,225 annually for the calendar years 1948 through 1951. The Commission also has decided to inform local government officials in the Du Page County, Ill., area that at the end of the construction period (after payments for the calendar year 1951) the matter will be reexamined and a determination made as to what, if any, payments will be made thereafter. The background for this action is set forth below.

In January 1947 the Commission authorized the acquisition by purchase and condemnation of title to approximately 3,732 acres of land in Downers Grove Township, Du Page County, Ill., as a site for the Argonne National Laboratory. Title to this land (except 14.4 acres currently being acquired) passed to the Commission subsequent to April 1, 1947, and prior to April 1, 1948. All of this land, with the exception of 1.47 acres owned by a rural school district, was subject to taxation before acquisition by the United States; taxes for the calendar year 1947 were the last taxes levied and collected.

There is no State real-property tax in Illinois. All real-property taxes are collected by the county treasurer and are based on levies made by such individual taxing units as the county of Du Page, the health department, various school districts, and other local units of government. While the total amount of revenue lost to the local government units is small as a result of the Commission's action, these units are, by and large, basically suburban and rural units operating on small budgets. The five school districts affected by the Government's acquisition are the units suffering the most, high school district No. 210 having lost 24.11 percent of its total income from Du Page County sources and school districts Nos. 63 and 64 having lost 27.09 percent and 55.44 percent of total income respectively.

The president of the board of education of high school district No. 210 has stated that because of the loss of income, operations of the school have been seriously impaired and it has been necessary to borrow money to purchase fuel and to pay teachers' salaries.

The Commission does not find that the county has or will receive any substantial benefits in measurable quantity in the next few years from the activities of the Commission in the Du Page County area. The most likely direct benefits possible will accrue as Commission or laboratory employees build homes in the county or township and thereby create new taxable entities. Such construction has not yet taken place. Government expenditures for such things as payroll and construction have no appreciable measurable effect on revenues of county and township governing bodies since most of such expenditures go outside Du Page County.

Thus, it does not appear to the Commission that the benefits resulting from the location of the laboratory at the Du Page site will offset, during the construction period of the laboratory, the direct tax revenue losses suffered by the local Du Page governing bodies. Accordingly, the Commission exercised its authority under section 9 (b) of the Atomic Energy Act to make payments in lieu of property taxes for this period. In doing so, however, it recognizes that the situation may change as the laboratory completes its construction and the number of workers at the Du Page site increases. A substantial change might affect the present conclusion that no measurable benefits to the county government units have accrued, and point to the possibility of a different kind of action on the part of the Commission for the subsequent period.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

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## UNUSUAL RACKETS

MARCH 1, 1951.

To: William Borden.
From: Edward L. Heller, joint committee staff.
Subject: Labor brokerage.

The problem of labor brokerage in Q-cleared engineer personnel was first raised with the committee on Wednesday, February 28, 1951. It was stated that the Commission had recently become aware that certain individuals had been going into business and in effect selling the services of Q-cleared engineers to contractors new in the AEC business, or to contractors facing a critical shortage of certain types of engineering talent. The service works about as follows:

The broker contacts engineers working for the AEC or for one of its contractors who have Q-clearances. He says that he can double their pay if they come with him. If the man agrees, he is told to continue at his present job until he hears from the broker. The broker then contacts AEC contractors or subcontractors in other areas who are in need of engineers. He offers to supply this engineering talent on a contract basis. If the Commission contractor signs an agreement for these services, the broker then notifies the engineers, who quit their job and come to work for him. He immediately reassigns them to his contract and places them in the office of the new AEC contractor. This office supervises the employees and pays the broker for their services. The men's salaries are greatly increased through the following devices:

(*a*) They are paid per diem for all the time in which they work for their new contractor. They are given travel allowances to visit their home base, often several hundred miles away, once per month. Various other ingenious types of such payment are devised and these essentially result in tax-free expense allowances to the men. In addtion, the labor broker takes a percentage for overhead. There is a report of one labor broker firm in New Jersey which cleared a hundred thousand dollars in 9 months. The men employed by these services find it highly profitable. Even if the job ends after several months, engineers today have no problem finding reemployment. The worst feature of the labor-brokerage practice, aside from the excessive costs which the buyer pays is the fact that once the labor broker's men get inside the contractor's plant they immediately start recruiting the contractors own workers. It is standard practice to find men in the $5,000 to $6,000 bracket making double this amount while in the employment of labor brokers. These brokers camouflage their operations as engineering services. Thus they are difficult to distinguish from legitimate engineering services unless one is experienced in this field. The key difference between the legitimate engineering service and the labor broker is the fact that the former provides full supervision for its employees, and also provides consulting service through the use of certain key personnel assigned to the home office.

These labor brokers find their best opportunities among firms who have recently received an AEC contract, or among small firms who have had little experience with engineering services and who are therefore unable to recognize this particular type of deception.

The AEC estimates that the Commission and its prime contractors have lost about 24 engineers to labor brokers in this period. The Commission states that the problem, although a minor one at the present time, is potentially troublesome and therefore requires continued watching. They have been unsuccessful in devising any rules which would eliminate the possibility of a contractor hiring this type of service. They are therefore concentrating on an educational program to make all of the area offices and all of the important Commission contractors aware of the fact that this practice is in operation, and on explaining how to distinguish labor brokers from legitimate engineering consulting services. It is understood that the Army and the Navy face the problem on a considerably larger scale because of the greater volume and diversity of their engineering and procurement activities.

UNITED STATES ATOMIC ENERGY COMMISSION,
SAVANNAH RIVER OPERATIONS OFFICE,
*Augusta, Ga., February 26, 1952.*

Information for the press (No. 37).
For immediate use.

Prospective job seekers at the Savannah River plant of the Atomic Energy Commission in South Carolina were warned today by the AEC and the du Pont Co. to be wary of persons claiming that they can "buy" employment for the job seeker at the plant.

The warning was prompted by disclosure that several prospective job seekers recently paid money to strangers who made representations to them that jobs could be "bought" at the plant. When the prospective job seekers appeared for employment at the du Pont employment office, the referenced "jobs" naturally did not materialize. Sums ranging from $18 to $25 were paid the strangers.

The AEC and du Pont emphasized that persons seeking employment should contact the du Pont employment office direct. Any person making representation that he can "buy" employment for a prospective job seeker is misrepresenting the facts and should be reported promptly to the Atomic Energy Commission at the Savannah River plant (Augusta, 4-6392; Aiken, 1440).

## A MEDICAL INQUIRY

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., December 4, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate.*

DEAR SENATOR MCMAHON: Mr. Borden has requested that we reply to you on the questions raised by Dr. [name withheld] in his letter to you of November 16, 1951, in which he expresses concern about an apparent increase in miscarriages which he has observed in his practice. He asked for information concerning the possible relation of radiation from recent atomic bomb tests to this phenomenon.

In the tests of last winter, some radioactive material was detected in snow over the Middle West and New England States, as noted by Dr. [name withheld] in his letter. In some regions, such as the area around Rochester, N. Y., this activity was sufficient to give some concern to the photographic industry, but was at no point of a level of biological importance.

The data from the tests now in progress will not be available for some time, but the preliminary measurements on the fall out in different parts of the country show that the levels of radiation produced will be of the same order of magnitude as those that resulted from the tests of last winter. Even the regions relatively close to the test site will not experience a total radiation dosage above 0.001 roentgens. In view of the fact that we permit 300 times this amount per week for workers in the atomic-energy program, it is evident that there is no possibility that the minute amounts of radiation from the bombs will occasion any difficulty such as noted by Dr. [name withheld].

Further perspective may be gained by a consideration of the doses delivered to the pelvis in X-ray examinations of pregnant women for pelvic measurements. Drs. John S. Handloser and Robert A. Love, in Radiology, volume 57, pages 252–54, August 1951, report that for the anterior-posterior view 3.6 roentgens are delivered to the pelvis, and approximately 9 roentgens may be delivered for a lateral view. These values are many thousands of times greater than can be experienced even relatively close to the testing site.

The work of the Atomic Bomb Casualty Commission in Japan has shown that at Hiroshima and Nagasaki women in the first trimester of pregnancy exposed to levels of radiation much greater than are involved in taking roentgenograms of the pelvis did not experience any unusual incidence of miscarriages. This is further indication that the safety levels which have been established by the Atomic Energy Commission are far on the conservative side.

Statistics on the incidence of miscarriages over the United States are not reported to the United States Public Health Service, and such analysis is not available at the present time. We are, therefore, unable to answer the question about the frequency of miscarriages in other parts of the country.

Sincerely yours,

SHIELDS WARREN, M. D.,
*Director, Division of Biology and Medicine.*

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## CASUALTY RESEARCH IN JAPAN

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., June 14, 1950.*

DEAR SENATOR MCMAHON: This is to supplement the reference in the Commission's current quarterly report to the project now underway in Japan to survey the effects on human beings of the atomic bombs dropped at Hiroshima and Nagasaki.

The early history of this project and the preliminary results of the work were outlined in the Commission's fifth semi-annual report. The project is being conducted by the Atomic Bomb Casualty Commission of the National Research Council, and has been financed by funds appropriated to the Atomic Energy Commission and made available to the National Research Council under a contract between the Atomic Energy Commission and the National Academy of Sciences. The original contract was entered into as of July 1, 1947, for a period ending June 30, 1949, and has been extended to June 30, 1950. A further extension of the contract is now under consideration. The Atomic Bomb Casualty Commission was organized as a result of a Presidential directive

recommended by Secretary Forrestal in November 1946 following a report of the Armed Forces Joint Commission for Investigating the Effects of the Atomic Bomb in Japan.

The main objectives which the Atomic Bomb Casualty Commission felt it desirable to achieve were (1) to determine the medical changes brought about in those exposed to the atomic bomb explosions, and (2) to determine the genetic changes, if any, effected by ionizing radiations in offspring of persons exposed to the bomb explosions. To accomplish these objectives requires that, to the greatest extent practicable, complete examinations be made of adults and children (1) of the populations exposed to the bombings, and (2) of an adequate control population of persons not exposed to the bombings. The activities involved include physical examinations, blood studies, X-ray examinations, anthropometric studies on exposed children, investigation of pregnancy terminations and studies of deaths occurring in the bombed areas.

It has been recognized that it is often difficult to translate the results of experiments on animals to human beings. The inhabitants of Hiroshima and Nagasaki constitute the only extensive human source of data for scientific study of the effects on human beings of actual explosions of the bomb. Records on persons who were in the bombed areas therefore provide a unique source of information on the medical aspects of atomic energy, and the medical findings have important significance for civilian defense planning in the United States. This is reflected in the report prepared for the National Security Resources Board on the medical aspects of atomic weapons and in publications by personnel of the Atomic Bomb Casualty Commission mentioned in the list which we enclose.

The work under the program is described in some detail in the enclosed press release. One of the important recent developments, which has contributed to an increase in the volume of work under the program beyond initial expectations, is in the field of ophthalmology. A preliminary survey started last year at Hiroshima, by Dr. David G. Cogan of the Harvard Medical School, revealed 10 cases of cataracts believed to have been caused by the atomic bomb. Subsequent examinations have led to the discovery of about 40 certain cases of radiation cataract and an additional 40 suspected cases. Full-scale continuance of this study, including follow-up examinations, is considered to be of great importance.

The program also involves study of births in the two bombed cities. Continued investigations on a large scale of live births, autopsies on still-born infants and infants dying soon after birth, and follow-up examinations of surviving year-old infants are necessary in order to detect small changes in the frequencies of congenital and inherited abnormalities. Further information is being obtained through comparative pediatric studies on groups of exposed and unexposed children to determine, if possible, their differences in growth and development.

The difficulty of recruiting qualified American and Japanese personnel, the surmounting of language differences, and the problem of operating in the midst of a military occupation of a war-desolated enemy country, have constituted formidable obstacles to the program. In addition, difficulties have been encountered in comparing abnormalities found in the irradiated population with control groups of unexposed persons, since there have been no adequate basic research studies from which to develop the normal base line for the Japanese population. For this reason, and because of the abnormal conditions prevailing in Japan during 10 years of war, the development of basic information has been difficult, making necessary such activities as a survey, in connection with the genetics program, to determine frequencies of various degrees of consanguineous marriage in Japanese communities.

The scientific value of the information gathered depends in part on ability to make laboratory examinations of the greatest possible number of those persons who were exposed, and their offspring, and to examine a comparable number of unexposed persons. The activities of the Atomic Bomb Casualty Commission were initially carried on at three places. Hiroshima and Nagasaki were subjected to different types of the bomb, are on different islands, and are separated by a distance of approximately 200 miles. Laboratories at both places were accordingly considered necessary initially. The city of Kure was selected as a site for the examination of a typical unexposed population. Later study of the program indicated the desirability of concentrating laboratory work chiefly at Hiroshima, of having only limited facilities at Nagasaki, and of using unexposed persons who have moved into Hiroshima and Nagasaki as controls in lieu

of using Kure as a control site. Plans for proposed new laboratory construction at Nagasaki and Kure were accordingly held in abeyance in the latter part of 1949 at the request of the Atomic Energy Commission. Construction went forward on a new laboratory at Hiroshima consisting of interconnected Quonset huts providing approximately 35,000 square feet of space and two additional huts providing approximately 7,000 square feet of space; this laboratory is now being completed and will replace inadequate quarters in a warehouse rehabilitated by the occupation forces. Present plans call for the rehabilitation of an existing building at Nagasaki formerly occupied by military government personnel in lieu of any new construction.

As yet no housing for personnel has been constructed under the program. We have only recently concluded that construction of housing for American personnel working at Hiroshima will be necessary. Since there is no housing available for them in the Hiroshima area, American personnel live in Kure and commute daily to work. While the distance is only 30 miles, 1½ hours' travel time each way by bus is required, at a considerable loss of working time.

After review of the circumstances the Atomic Energy Commission has authorized extension of the contract and continuance of the program at an augmented level. This is subject to the availability of funds. As stated in the Commission's fifth semiannual report, the program of the Atomic Bomb Casualty Commission has been considered a long-term undertaking. At the time the contract with the National Academy of Sciences was entered into, no agency other than the Atomic Energy Commission had funds available for the support of this work, although the Army and Navy had, and continue to have, a major interest in the information resulting from the program. We feel that it is now appropriate for us to suggest to the National Research Council that future financing of the program for the fiscal year 1952 and subsequent fiscal years be shared with other interested agencies.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

Enclosures: List of publications, press release No. 289.

LIST OF PUBLICATIONS BY PERSONNEL OF THE ATOMIC BOMB CASUALTY COMMISSION

1. Neel, James V., "Genetic Effects of the Atomic Bombs in Hiroshima and Nagasaki," Science, 106, 331–333 (1947), No. 2754, Oct. 10.
2. Snell, F. M., Neel, J. V. and Ishibashi, K., "Hematological Studies in Hiroshima and a Control City Two Years After the Atomic Bombing," Archives of Internal Medicine, 84, 569–604 (1949), No. 4, October.
3. Snell, Fred M., "Obervations on the Hematological Values of the Japanese," Blood (in press as of December 1949).
4. Neel, J. V., Kodani, M., Brewer, R., and Anderson, R. C., "The Incidence of Consanguinity in Japan," American Journal of Human Genetics (in press as of December 1949).
5. Cogan, D. G., Martin, S. F., and Kimura, S., "Atomic Bomb Cataracts," Science, 110, 654–655 (1949), No. 2868, Dec. 16.
6. Cogan, D. G., Martin, S. F., and Kimura, S., "Ophthalmologic Survey of Atomic Bomb Survivors in Japan, 1949" (in press as of December 1949).

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UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON 25, D. C.

For press and radio.
No. 289.
For release in Sunday newspapers, June 18, 1950.

ATOMIC BOMB CASUALTY COMMISSION TO CONTINUE STUDIES OF JAPANESE ATOMIC BOMB SURVIVORS

Japanese survivors of the atomic bombings at Hiroshima and Nagasaki have apparently recovered from the acute or immediate effects of the bombings, but within recent months the first evidence of delayed effects—the formation of eye

cataracts—has come to light, according to records of the Atomic Bomb Casualty Commission of the National Research Council.

Since 1947, with the support of the Atomic Energy Commission, the ABCC has conducted continuous studies of the medical and genetics effects on the populations of the two bombed cities.

The Japanese survivors make up the only group of human beings in the world who have been exposed to an atomic bomb burst. For this reason the medical findings of the ABCC have important significance for scientists and for military and civil defense planning in the United States.

The findings will be reported in the scientific literature and will be made available to the Department of Defense, National Security Resources Board, United States Public Health Service and other agencies, who will be responsible for defense and relief measures in the event of an atomic disaster in this country. To date ABCC has accumulated some data on more than 150,000 persons in the bombed areas .

Dr. George Hardie, AEC Medical Branch, and John V. Lannan, AEC Finance Division, are now in Japan to study operations of the ABCC program. A similar survey was made in 1949 by Dr. John Z. Bowers, of the Division of Biology and Medicine. Dr. Hardie was formerly associated with the Division of Preventive Medicine, John Hopkins University. Mr. Lannan went to Japan from Formosa, where he has been on a special assignment for the Economic Cooperation Administration, on loan from the AEC.

Scattered studies of the effects of the bomb blast were begun by medical observers attached to the Allied occupying forces in 1945. In order to organize the work on a more complete and orderly basis, the ABCC was set up by the NRC in 1947 under the Committee on Atomic Casualties.

During the past 3 years, first under the direction of Dr. James V. Neel of the University of Michigan and now under Lt. Col. Carl F. Tessmer, United States Army, a considerable amount of data has been accumulated to serve as a base line in follow-up studies through the years. These data include physical examinations, blood studies, X-rays, pregnancy terminations, and growth studies of children.

At the present time the Japanese survivors have recovered from the acute or immediate effects of the bomb blast, such as loss of hair, temporary infertility, and blood changes. The study of long-range effects, such as effects on growth, tumor, or eye cataract formation, and genetic changes, will require many years. In order to obtain definite information on inherited changes it will be necessary to make careful observation not only of the children of those bombed but their grandchildren as well.

Following the discovery that radiation similar to that released in an atomic bomb burst had caused cataracts to form in the eyes of research workers in this country, a preliminary ophthalmac survey was started at Hiroshima last year. This survey, led by Dr. David G. Cogan and Dr. S. Forrest Martin of the Harvard Medical School, revealed 10 cases of cataracts believed to have been caused by the atomic bomb. Subsequent examination of 1,000 persons, most of whom were within 3,000 feet of the point above which the bomb exploded, has led to the discovery of about 40 certain cases of radiation cataract and an additional 40 suspected cases.

A full-scale ophthalmological study is now under way at Hiroshima and a survey of survivors at Nagasaki is also planned. Annual follow-ups will be made of a statistically significant sample of all persons known to have been within a certain radius of the bomb's hypocenter. More frequent follow-ups of all known and suspected cases of cataract are planned. The eye studies are under the direction of Dr. S. J. Kimura.

The medical follow-up of births in the two cities was begun in 1947, and to date approximately 35,000 births have been investigated. It has been estimated that at least 200,000 births must be studied in order to detect small changes in the frequencies of congenital and inherited abnormalities.

In addition to using clinical methods to detect abnormalities present at birth, the ABCC, wherever possible and with the cooperation of the Japanese people, makes routine autopsies on stillborn infants and infants dying soon after birth.

All live births are checked. In addition, the ABCC hopes to give each infant a follow-up examination at age 1 year. This will confirm earlier diagnoses and detect congenital and inherited abnormalities which often are difficult to discover in the newborn. At the present time medical examinations of the newborn are being made at the rate of 700 births per month in Hiroshima and 800 births per month in Nagasaki.

In 1947 and 1948 a survey of approximately 300 exposed children and 300 normal Japanese children was undertaken, under the direction of Dr. W. W. Greulich, of Stanford University, to determine possible differences in growth and development between these two groups. These pediatrics studies have been continued by the ABCC. By the end of 1949 almost 2,800 initial clinical examinations had been made under the program and 186 follow-up examinations were made during the year 1949.

As has been the case in all biological and medical studies to determine radiation effects, it is necessary to compare abnormalities found in the irradiated population with so-called normal or control groups among the general population. This presupposes that a reliable base line has been developed through past experience. ABCC research workers have learned, however, in connection with the Japanese population that the basic research studies necessary to draw the normal base line are inadequate.

Much of the effort of the ABCC has necessarily been expended in learning more about the normal state of health of the Japanese people. This has been made more difficult by the great social changes resulting from the war and the artificial type of population control resulting from the strong regulation of civilian activities during almost 10 years of war.

For example, in 1949 the ABCC conducted a survey of 5,000 marriages to determine frequencies of various degrees of consanguineous marriages (marriages between blood relations) in Japanese communities. From a genetic point of view such marriages are of considerable interest, since they increase the chance for observing inherited family traits in the offspring. Such knowledge will assist in the evaluation of genetic effects observed in the survey cities and will assist scientists in comparing the Japanese data with those reported in other parts of the world.

The initial arrangements for the genetics program were organized in January 1947 by Dr. James V. Neel, University of Michigan, the first director of ABCC. The current program is under the direction of Dr. H. Grant Taylor and Dr. William J. Schull.

Many unexpected problems have been met and solved in full or in part during the 3-year period over which the ABCC has been operating. For example, the difficulty of screening exposed persons has been complicated by the fact that to have survived the atom bomb blast confers a certain social prestige upon an individual. Hence, many persons who apparently were nowhere near the explosions now claim to have been in the vicinity at the time of the bombing.

According to present radiation census records, about 900 persons are definitely known to have been within 3,200 feet of the on-the-ground center of the explosion. The estimated number of survivors originally within the 6,500-foot zone, where radiation sickness was common, was approximately 80,000 in Hiroshima and 15,000 in Nagasaki. Many of these persons have since left the area. At present approximately 28,000 survivors still are believed to live within the 6,500-foot zone. However, in order to get this sample it will be necessary to screen several times that number of persons.

In the genetics program an effort has been made to determine the outcome of every pregnancy in the two towns under study. The most useful source of information on this group is obtained through the existing Japanese food ration regulations, which provide an additional ration for pregnant women. At Nagasaki this method is supplemented by local legislation requiring a blood test of all pregnant women. Upon this basis the pregnant women are first interviewed and registered at about the fourth to sixth month. Future contact is then made to determine the outcome of pregnancy and make medical examination of the live births.

Abnormal births are handled by a system of immediate reporting, which appears to function fairly successfully based on the effective cooperation of midwives and obstetricians. As in most countries current vital statistics on spontaneous abortions, stillbirths, and infant deaths are believed to be highly unreliable.

The principal medical facilities have been set up at Hiroshima with subsidiary facilities at Nagasaki.

One of the primary operating problems in the past has been the lack of housing at Hiroshima for the 135 American personnel working on the program. At present these persons must commute from Kure, 30 miles away, where they have been living, often in substandard housing, and have been spending about 3½ hours per man per day in travel.

A housing construction program designed to accommodate all American personnel working in Hiroshima is contemplated. With new housing and completed medical and laboratory facilities at Hiroshima, approximately 50 to 75 patients can be handled per day during fiscal 1951 with an increase to 75 to 100 patients per day expected during fiscal 1952. This represents a substantial increase over the current figure of 40 patients per day.

In addition to American and Allied personnel the ABCC employs at present 650 Japanese personnel. The Japanese National Institute of Health, which is cooperating in the program, provides an additional 51 persons. The ABCC operates as an attached unit of the Public Health and Welfare Section of the General Headquarters of SCAP.

The first studies of atomic-bomb casualties were carried out in late 1945 and early 1946 by the Joint Commission for the Investigation of the Atomic Bombing in Japan. On its return to the United States, this group recommended that long-term studies of these effects be started. After several conferences among the armed services, the Manhattan District and the National Research Council of the National Academy of Sciences, this recommendation was approved with the understanding that the authorized studies would be made under the supervision of the NRC.

These recommendations were transmitted to the President who approved them stipulating "* * * the Council be authorized to enlist the aid of governmental agencies and personnel, and such civilian agencies and personnel as may be needed. Further, that those governmental agencies whose aid is requested by the Council be authorized and requested to provide the needed cooperation."

Upon this basis, the Atomic Energy Commission was asked to provide financial support for the studies. A contract was entered into for a period ending June 30, 1949, and this was subsequently extended.

A second survey group was the Brues-Henshaw Commission which worked in Japan during the latter part of 1946 and the early portion of 1947, under Dr. Austin M. Brues, director of biology, Argonne National Laboratory, and Paul S. Henshaw, Clinton engineer works, Oak Ridge, Tenn. When this group departed from Japan, there remained behind a nucleus consisting of one naval and two Army medical officers to carry out an interim program. The Atomic Bomb Casualty Commission has grown from this nucleus.

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CONGRESS OF THE UNITED STATES,
*House of Representatives,*
*Washington, D. C., February 15, 1951.*

Mr. WILLIAM BORDEN,
*Clerk, Atomic Energy Committee,*
*The Capitol, Washington, D. C.*

DEAR BILL: I am enclosing herewith information on the research program in Hiroshima. It is my understanding that the appropriation on this program has been cut, and I wish you would look into this matter for me and advise. You might also speak to the chairman about this.

With best regards, I am
Sincerely yours,

CARL T. DURHAM.

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NATIONAL RESEARCH COUNCIL,
DIVISION OF MEDICAL SCIENCES,
*Washington 25, D. C., February 12, 1951.*

DR. JOSEPH KOEPFLI,
*Scientific Adviser, Department of State,*
*Washington, D. C.*

DEAR DR. KOEPFLI: At the conference held in your office on February 7, 1951, you requested that certain basic factual information be supplied you regarding the disposition of the Atomic Bomb Casualty Commission in Japan in order that the potential interest of the Department could be assessed.

The information you requested is herewith submitted.

Very sincerely,

M. C. WINTERNITZ, M. D., *Chairman.*

NATIONAL RESEARCH COUNCIL,
DIVISION OF MEDICAL SCIENCES,
*Washington 25, D. C., February 9, 1951.*

**Memorandum**
**To: Scientific Adviser, Department of State,**
**From: Dr. M. C. Winternitz, Chairman, Division of Medical Sciences**
**Re: Status, Atomic Bomb Casualty Commission**

***History***

The Atomic Bomb Casualty Commission was established in December 1946 as the field agency of the Committee on Atomic Casualties of the National Research Council to study the long-term medical effects of the atomic bombs exploded in Japan.

There are appended copies of a series of documents tracing the development of this study.

On the basis of recommendations made by the Joint Commission (Army-Navy-Manhatton District) for Investigating the Effects of the Atomic Bombs in Japan (tab 1), the Surgeon General of the Army Service Forces requested the National Research Council to make suitable recommendations for continued studies (tab 2).

A provisional committee, at the invitation of the Council, met on June 24, 1946, and their recommendations were transmitted to the Surgeons General of the Army and Navy.

The Surgeon General of the War Dpartment acknowledged the recommndations of the committee (tab 3) and made arrangements for a survey of the situation in Japan by two civilian scientists, Drs. Austin Brues and Paul Henshaw (tab 4). The report prepared by these men further confirmed the desirability of long-term medical and biological studies of the atomic bombing survivors.

It was generally agreed by all scientists consulted that a minimum study period of 10 years should be assured or the project should not be undertaken.

The Surgeon General of the Navy indicated the approval and interest of the Department of the Navy (tab 5). He recommended to the then Secretary of the Navy, Mr. James Forrestal, that a Presidential directive be issued directing the council to carry out the indicated studies. Such actions was initiated (tab 6). On November 18, 1946, Mr. Forrestal requested such a directive (tab 7) and Presidential approval was obtained on November 26, 1946.

The Secretary of War stated the interest of the War Department in the project (tab 8) and additional expressions of the importance of this project to the military services were forwarded by the Surgeon General of the Army (tab 9) and of the Navy (tab 10). Shortly thereafter, the National Research Council was informed that no funds were available in the Navy (tab 11) or Army (tab 12) to support the project.

The interest of the Air Forces was expressed by the Deputy Chief of Air Staff for Research and Development (tab 13).

At the request of the Director, the Army Institute of Pathology has been designed as the repository for all X-rays and photographic pictures, case histories, autopsy and biopsy material, and other data collected by the Atomic Bomb Casualty Commission.

On the recommendation of the Bureau of the Budget, the National Research Council approached the United States Atomic Energy Commission for financial support for the studies in Japan. A contract for this purpose was signed (tab 14), and the National Research Council immediately initiated the work in the field.

On June 25, 1948, the Joint Chiefs of Staff, National Military Establishment, through the Armed Forces Special Weapons Projects, affirmed its interest in the project as potentially providing it with information vital to its area of interest (tab 15).

On August 21, 1950, the Atomic Energy Commission advised by letter that the appropriation in support of the program would be $1,700,000 for fiscal year 1951; that for fiscal year 1952 would be limited to $1,000,000, and that the National Research Council should approach other agencies of Government for further financing.

Representatives of the National Research Council and of the Atomic Energy Commission visited the project and returned in agreement that the funds proposed and available were inadequate to carry out the study as planned.

At a meeting of the Advisory Committee on Biology and Medicine of the Atomic Energy Commission held in Hanford on January 12 and 13, 1951, it was agreed that in view of the limitation of funds, plans should be made for closing out over a period 12 to 18 months. It was also recommended that the potential interest of the Departments of State and of Defense be ascertained.

At the meeting of the Committee on Atomic Casualties of the National Research Council held in Washington on February 3, 1951, the program was again reviewed in the light of funds assured. The firm conclusion was reached that, under the circumstances, it was mandatory to commence termination of the program immediately and that final close-out date of approximately September 1, 1951, be established.

Moves to this end have been initiated and the Departments of State and of Defense have been informed.

*Physical plant*

Temporary laboratories were established in Hiroshima, Nagasaki, and Kure. The latter was abandoned on August 31, 1950. Plans for semipermanent laboratories in the three cities were drawn. Due to increasing limitations imposed by finance, only the laboratory at Hiroshima was erected. It is now in operation and patients are being examined at the rate of 65 per day.

*Staff*

A staff of American scientific personnel of high caliber was recruited, and supplemented by Allied and Japanese nationals, they have carried forward the work. The total staff of all ranks and nationalities numbers 1,061 persons.

*Finance*

Appropriated funds for this program, for plant and operations will, by June 30, 1951, total $5,400,000. Cost of close-out subsequent to that date will add approximately $1,700,000 to a final total of $7,100,000.

*Medical findings*

Following characterization, by various methods of census, of the populations of Hiroshima and Nagasaki with respect to such factors as distance from the hypocenter at the time of the bombing, history of radiation disease, etc., systematic medical studies, to the extent permitted by limitations of staff and space, were initiated and certain disease entities, such as cataracts and leukemia, attributable to the effects of radiant energy, have been identified. A genetic program, originally contemplating examination of 200,000 infants in the two cities over a 10-year period, has already achieved proportions without parallel in the history of man. As of December 1, 1950, a total of 54,052 patients had been examined.

*International relations*

The directorate and the staff of the Atomic Bomb Casualty Commission have established relations with the deans and faculties of every university and medical school in Japan, with the Japan Science Council, and with every Ministry of the Japanese Government. Representatives of the Commission have attended many national medical and scientific meetings throughout Japan in the past year.

*Discussion*

The planning, construction, and operation of laboratories designed to assess, insofar as possible, the results of a unique experiment on the surviving populations of the cities of Nagasaki and Hiroshima have been difficult. The inevitable problems related both to staffing and operating them have arisen and, in the large, been met. The program for these reasons has admittedly been slow to get under way. At the present time, however, the work is proceeding satisfactorily at Hiroshima and data of a significant nature are now being gathered rapidly.

*Alternative*

The alternative to abandonment is conditioned by several factors. To bring the existing laboratories to full effectiveness will require erection of housing and community facilities in Hiroshima.

The existing situation whereby the American personnel must commute daily from their housing in Kure is intolerable in terms of economy of time, effort, and money. The latter loss can be accurately estimated as of the order of $80,000 annually in salaries alone. The present laboratory would more than double its present effectiveness by the erection of two additional units. $1,500,000 would be required to effect these essential moves.

At present the cost of operation is of the order of $141,000 per month to a total of $1,700,000 per year. An annual budget of $2,000,000 per year over a period of at least 5 years would have to be assured to make the reward commensurate with effort of maintaining the project.

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 27, 1951.*

Representative CARL T. DURHAM,
*House Office Building, Washington, D. C.*

DEAR MR. DURHAM: Replying to your letter of February 15, I can say that medical studies of the survivors of Hiroshima and Nagasaki will not be terminated this year, press reports to the contrary notwithstanding. The Atomic Energy Commission (which finances these studies) and the National Academy of Sciences (which administers them) have both advised that the program will go forward.

The only uncertainty involved is the scale on which it is to proceed. At present, the AEC is spending $1,700,000 per year on the Atomic Bomb Casualty Commission. It now proposes to reduce this sum to $1,000,000 in fiscal 1952, and the newspaper publicity you may have seen was generated from that fact. It does not seem that such a budget reduction need impair the basic effectiveness of the project. The reduction flows from the difficulty of maintaining the full scope of present activities in light of the Korean war and the possibility of a Japanese peace treaty.

All the responsible people directing the casualty studies are keenly aware of their value and are determined to keep them in operation.

Sincerely yours,

WILLIAM L. BORDEN,
*Executive Director.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C. August 29, 1951.*

DEAR SENATOR MCMAHON: This letter is for the purpose of appraising the joint committee of the major events of interest which have developed in the Atomic Bomb Casualty Commission program in Japan within the past year.

Our letter to you of June 14, 1950, reviewed the history of the project set up in Japan in 1947 to study the effects on human populations of the Hiroshima and Nagasaki bombings, and outlined the program's objectives. This letter is based on our further study of the project since that time.

*Scientific program*

A radiation census of the 96,000 and 89,000 survivors who were in Hiroshima and Nagasaki, respectively, at the time when the bombs were dropped on the two cities has been completed. The pediatrics program as now conceived, which includes the repeated examination of all children present in the highly irradiated areas at the time of the bombings and the examination of all children born of parents one or both of whom were exposed to the bombs, will, we believe, make apparent any important changes in the growth rate of such children. The examination of adults exposed to radiation has been altered to shift primary emphasis to those in the most highly irradiated sections of the population, and is being aimed now toward disclosing any consistent and systematic effects of the bomb radiation. The genetics program has revealed that there is a slight increase in mutation frequency among children of irradiated parents. However, samples are as yet not sufficiently large to enable this to be stated as a general conclusion, and work will continue in this field. Data we hope to obtain from this phase of the program may, of course, be of fundamental value in the future design of atomic energy plants.

A feature of the program which we consider of great importance is the securing of pathological data on irradiated persons. Plans are going forward to enlarge upon this important source of information by securing the active cooperation of all pathologists in Japan in an effort to obtain complete autopsies on every person exposed to radiation, wherever they might happen to be in Japan at the time of death, and by securing additional pathological information

incident to surgery. Although this coverage will not be complete, it does represent a very substantial and noteworthy step in the proper direction.

Progress is continuing in the study of leukemia, where it is now apparent that there is an increased frequency of the disease among the irradiated population; in the study of cataracts, where special survey methods are bringing about recognition of this condition approximately one year earlier than otherwise would be the case; in the field of cytogenetics, where findings of consequence and importance are daily being added to the radiation records; and in the screening of general sickness, where special attention is given to significantly ill individuals with the thought that it is among this fraction of the population that the important changes due to radiation will become apparent.

*Organization*

Organizationwise, certain steps have been taken by the contractor, the National Academy of Sciences, with our cooperation, which we believe will simplify the administration of the project considerably.

In Japan, various related departments have been amalgamated into five major divisions for more efficient and economical operation, with over-all authority and responsibility vested entirely in the field director in Japan. American personnel is to be gradually replaced by Japanese personnel in all but key supervisory positions, thereby encouraging the Japanese and at the same time materially cutting salary costs.

In Washington, the administrative structure has been recast. Until recently the National Academy of Sciences discharged its functions under the contract with the AEC for the most part through the National Research Council. Beginning July 1, 1951, the National Research Council withdrew from this role, and an informal joint AEC-National Academy of Sciences advisory committee was established to advise the National Academy of Sciences with respect to the scientific program and to review the program budget to assure its compatability with established scientific objectives. The National Academy of Sciences has also appointed an executive officer who will be responsible for the day-to-day affairs of the project in Washington, and will serve as liaison between the joint advisory committee, the National Academy of Sciences, and the AEC.

*Construction*

As we mentioned in our letter of June 14, 1950, the lack of housing facilities at Hiroshima has created a serious commuting problem which has resulted in the loss of at least 3 hours of useful work per day per employee and an estimated annual expense of the order of $160,000—$490,000 was allocated in 1950 for the construction of housing facilities at Hiroshima. It developed, however, that the plans submitted could not be executed within the funds available.

A construction program developed this year for Hiroshima is designed to improve the efficiency of project operations by providing for needed administrative and housing facilities within the as yet unobligated and presently available funds mentioned above. Two of the four buildings contemplated will be additions to the existing laboratory and clinical installation, and will achieve the centralization, so far lacking but needed for efficient operation, of records and equipment at Hiroshima. Quonset material for the erection of these two buildings is already on hand in Japan, having originally been purchased for the construction of a laboratory at the abandoned Kure control site. The other two buildings will be dormitories, or BOQ-type structures, for Allied male, Allied female, and Japanese professional personnel. With the completion of these facilities, costly commutation can be discontinued and further reductions in operating costs will be possible and are planned.

*Financial*

It was our hope that AEC financial assistance to the program could be limited to an annual operating cost of $1,000,000 beginning with the fiscal year 1952, by having other interested Government agencies share in the financing. The Departmets of the Army, Navy, and Air Force have assured us of their interest and agree with our estimate of the scientific value of the program. Budgetary considerations indicate, however, that the program in its present scope should be financed and controlled by a single Government agency, presently the AEC. Therefore, until such time as the construction program at Hiroshima is completed, and pending replacement of American personnel by Japanese personnel, we have approved an operating budget of $1,300,000 for the program for the

fiscal year 1952. This is a reduction from the actual operating cost of approximately $1,500,000 in the fiscal year 1951.

*Effect of Japanese Peace Treaty*

The scientific adviser of the State Department has advised us that negotiations for the Japanese peace treaty will not stand in the way of effective continuance of the program after the occupation is terminated, and concurs in our belief that this program is of scientific importance and in the national interest.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

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## RADIOACTIVE GOLF BALLS

JULY 30, 1951.

Memorandum to the files.
From Edward L. Heller, Joint Committee Staff.
Subject: Radioactive golf balls.

In answer to an interesting inquiry from a Member of Congress concerning radioactive golf balls and golf-ball locaters, the following facts have been obtained from the Atomic Energy Commission's instrument branch. It now appears that the use of a Geiger counter to locate radioactive golf balls is not practical for the simple reason that to make the golf balls radioactive enough to be identified at a reasonable distance would result in a golf ball much too radioactive to have around your person for any extended period.

The radioactive material which would have to be inserted in the center of the golf ball would be dangerously radioactive in the event that children were to cut the golf ball open and come directly in contact with it. The mathematics work out about as follows:

In order to detect a golf ball at a distance of 3 feet with a commercial Geiger counter, it would be necessary to have an activity at the surface of the golf ball of about 100 milliroentgen per hour. The tolerance dose of radiation now used throughout the Atomic Energy Commission is 300 milliroentgen per week. On this basis, the golf ball would be dangerous if carried over 3 hours per week. To obtain 100 milliroentgens per hour at the surface of the golf ball, it would be necessary to have a source with an activity of about that equivalent to 17 micrograms of radium at the center of the golf ball. If the golfer were to carry 6 to 12 golf balls, in his bag, which is not unusual, they would create a source of radioactivity hazard. Further, they would ruin the film in any cameras kept within several feet of them for any length of time. The Geiger counter necessary to detect golf balls at a distance of 3 feet would cost from $100 to $300 and would be a rather bulky item about the size of a workman's lunch box. The range at which the golf balls can be detected could be doubled by the use of a scintillation counter but this instrument is even larger and costs between $300 and $700.

It would thus appear that while the idea at first look seems most attractive, it is impractical for two reasons. First, the equipment needed to detect a golf ball is too expensive to be practical and secondly, the activity required of the golf ball in order to be detectable with the best instrumentation is too high for safety.

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## THE $78 SIREN

AUGUST 12, 1951.

Memorandum to the file,
From: Edward L. Heller, joint committee staff
Subject: Siren on AEC mail-delivery truck.

In the summer of 1951 an AEC mail truck was noticed driving around town equipped with a police-type siren. The truck carried standard AEC markings on the door and was painted the standard green color used by the vehicle manufacturer for his commercial vehicles. These facts were brought to the committee staff's attention with the question as to whether or not the taxpayers' money had been wasted by the procurement of this special equipment.

A check with the Commission indicated that the vehicle belongs to the Radiation Instrument Branch which is located out at the Bureau of Standards Laboratory. A telephone call to Mr. Robert L. Butenhoff, Chief of the Radiation Instruments Branch, resulted in the following explanation:

About 2 years ago the AEC organized monitoring teams throughout the country. Each of these teams was equipped with an ample supply of detection instruments and was trained in the use of these instruments. The main purpose in organizing these teams was to provide disaster crews in the event of a disaster at one of the atomic-energy sites. One of the teams was located in Washington with headquarters in the Radiation Instruments Branch. This team offered its services to the Civil Defense Agency on a limited basis until such time as CDA had trained monitoring crews in the District. In organizing to effectively carry out its offer of assistance to CDA, kits of instruments are located in four different places throughout the District. The green-panel-body truck assigned to the Radiation Instruments Branch is used to pick up these instruments on a routine basis for shop check. It is principally used to deliver mail between the Commission's downtown offices and the Radiation Instruments Branch, to pick up supplies and materials used in the work of the branch, and to carry personnel between the downtown offices and the Bureau of Standards. It was decided to equip this truck with a siren and flashing red light in order that it might be used in the event of a CDA alert and insure that the vehicle would have right-of-way on Washington streets during an alert for a disaster. The Commission provided the necessary siren at a cost of approximately $72 and the siren was installed at an additional cost of $6.

E. L. H.

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## UNUSUAL MAIL

[From Rochester Democrat-Chronicle, February 20, 1952]

### Two Billions Asked to Develop "Atomic Woman"

(By Rose McKee)

Washington.—(INS)—What the world needs is an "atomic woman" and Congress should appropriate 2 billion dollars for her development.

This "worth-while project" was proposed to the Senate-House Atomic Committee by a store operator in British Guiana. His is one of some 100 letters which pour into the committee every week from all over the globe.

Every letter is read and those with even a glint of a practical idea are referred to experts on the Atomic Energy Commission for follow-up action. Frequently this means sending a patent application to the letter writer for his own protection in event he might really have an invention.

The British Guinan didn't get that kind of an answer though he put up an argument for his "atomic woman." He told the lawmakers they shouldn't worry about development of "atomic rockets or ships or cars or planes." He wrote:

"Let's concentrate first on an atomic woman and after her, let's make it plural—atomic women. It would only take a year and Congress should be glad to appropriate 2,000 million dollars for the project."

From atomic women he proposed the committee go to atomic men and then "there would be a market for longevity atomic people to buy atomic vehicles."

Some letters are concisely to the point. One man curtly wrote: "Dear Sir, I am the inventor of the A-bomb. When do I get paid?"

Recent mail has disclosed a pattern of fantastic worry over something supposedly called "interbrain communication." The writers purport to think this weird communication actually exists—and that it is enabling the Communists to rob the country of high secrets.

One correspondent urged the committee to look into the "large organization of operators of this transmitting system which is built by private manufacturers for subversive use."

This is the way he figured the device worked: "A medium contacts the sender brain and the receiver brain in such a way that the person (tapped) would not be made aware of the phemonena."

He protested that these interbrain "thefts" are going on at the White House, the Supreme Court, the FBI, the Pentagon, and even in Congress.

Another writer claimed that a "secret radar transmitter sends radio beams through a person and returns to the sender the person's secrets."

Still another complained that spies are "able to read my mind 24 hours a day." He said it was all pretty tiresome and he wished the lawmakers would figure out someway to give him relief.

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## PHOTOSYNTHESIS

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*October 11, 1951.*

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C.*

(Attention: Mr. Gordon Dean, Chairman)

GENTLEMEN: I understand that atomic energy furnishes the most promising scientific tools for attempting to penetrate the mystery of photosynthesis. Since you are supporting certain research projects in this field, and since the subject fires the imagination because of its possible revolutionary implications for the world food supply, I would very much appreciate a status report indicating what you are now doing, what you plan to do, how you are cooperating with others, and your hopes for the future—including hopes that may at the moment seem far removed from realization.

The joint committee's records should, I believe, reflect both its interest in photosynthesis research and what you are doing to advance such research.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., November 26, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate.*

DEAR SENATOR MCMAHON: In response to your request of October 11, 1951, for a status report on the activities of the Atomic Energy Commission in the field of photosynthesis, we are attaching a report on this subject prepared by Dr. N. Edward Tolbert of the Division of Biology and Medicine.

As you know, the Division of Biology and Medicine has a continuing interest in photosynthesis research because of the unique approach to the study afforded by the use of radioactive carbon, and because of our general responsibility for studying the effects of radiation on living organisms. We are very pleased to have made possible some important contributions in this field of current interest through our biology and medicine research program. We trust that you will freely call upon us for whatever additional information you may desire.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

### PHOTOSYNTHESIS RESEARCH AND THE ATOMIC ENERGY COMMISSION

(N. Edward Tolbert, U. S. Atomic Energy Commission)

Research in photosynthesis is an excellent example of an old problem being attacked with successful results by a new tool, radioisotopes, in this case radioactive carbon-14. Photosynthesis is the unique process which enables plants to use light energy in producing carbohydrates from carbon dioxide and water with the liberation of exygen.

Interest in photosynthesis has been active in recent years because of increased chemical knowledge and of its economic importance, and it has been greatly stimulated through the use of an atomic-energy byproduct, radioactive carbon. Funds available from the AEC for fundamental research have still further stimulated progress in the understanding of this important process. In a sense photosynthesis links our lives with the nuclear reactions of the sun, for the light energy used by plants is generated at a constant rate in the sun by subatomic reactions.

At present the work in photosynthesis can be divided into two rather different fields. The first and most important aspect is fundamental research on the minute details of the process itself. The second and of more immediate practical application lies in large-scale growing of algae under semicontrolled conditions—a marriage between biochemistry and engineering. Many smaller labora-

tories in various parts of the United States might with profit transfer some of this fundamental research toward a study of some of the problems of photosynthesis.

*AEC support of photosynthesis research*

The AEC has supported research in photosynthesis because (1) the adaptation of radioactive carbon to biological research has been a major scientific advance, (2) the AEC is interested in the affect of radiation on this vital process, and (3) photosynthesis research is of major importance to the Nation. This work is summarized in the following enclosures.

I. Enclosure A is a table of AEC projects directly related to the support of photosynthesis research. These projects total $194,000 and utilize about 12 scientific man-years and at least an equal number of technical man-years. Projects at the AEC laboratories are solely supported by the AEC; projects at universities receive about half their support from this source.

II. Enclosure B is that section dealing with photosynthesis copied from the next eleventh AEC Semiannual Report to Congress. It includes one project at the University of Wisconsin for $6,750 which is purposely omitted from enclosure A as it is not a direct photosynthesis project.

*Fundamental research in photosynthesis*

With respect to the fundamental research, this field can be divided into three parts: (1) The light reaction whereby radiant energy is absorbed by the plant; (2) enzymatic catalyzed biochemical steps whereby carbon dioxide is converted or reduced into organic material such as sugar; and (3) the complex and unknown biochemical mechanisms by which the light energy is transferred into potential chemical energy for the reduction of the carbon dioxide.

Basic research essential to the solution of these problems is being conducted at biochemical laboratories in universities and research institutions. The number of laboratories actually doing research specifically directed toward an understanding of the photosynthetic process, however, is rather limited. Many of the university research projects involve only a small amount of equipment and one or two graduate students under the direction of one professor. The larger groups consisting of more than one senior investigator doing photosynthesis research in the United States are as follows:

(1) University of California, Radiation Laboratory, Drs. M. Calvin and Benson and their group. This project has been doing the outstanding research in this country during the last 5 years on the chemistry of the transformation from $CO_2$ to sugar. They have been solely supported by the AEC and have made great advances.

(2) University of Illinois, Drs. Emerson, Rabinowitch, and Holt.

(3) University of Chicago, Drs. Franck and Gaffron.

(4) Oak Ridge and Brookhaven National Laboratories, Drs. Gibbs and Arnold.

(5) Carnegie Institution at Stanford and also Stanford University, Drs. Franch, Van Niel, and Blinks.

(6) University of Wisconsin, Drs. Daniels and Stauffer.

(7) University of Utah, Drs. Eyring, Spikes, and Lumry.

*Mass culturing of algae*

There is a possibility of an application within a few years of solar energy through photosynthesis to the mass culturing of algae. These are minute often single-celled plants which live in fresh water or the sea. They now form the basic food supply for the tiny animals which themselves support the larger animals of the sea. In the long-range planning of the world's economy the possibilities exist (1) that the problem of world food supply will become increasingly important and (2) that we will be faced with a serious depletion of fuel reserves, coal, and oil. It is theoretically possible that mass culturing of algae could alleviate both these problems, since these tiny plants can be grown in immense quantities and at a very rapid rate. The plant tissues formed could be basic food for men, as well as possible sources of fuel and energy.

The AEC has given financial support indirectly to this area of research, not only because of its interest in photosynthesis, but because of the possibility of the utilization of growing algae to decontaminate waste waters of radioactivity. Below are listed the chief university projects in the United States concerned with mass culturing of algae:

(1) Arthur J. Little Co., of Boston, an industrial engineering institution, is doing exploratory work in this field for Carnegie Institute. This project had been carried on earlier at Stanford Research Institute and supported by Carnegie.

(2) Carnegie Institute Laboratory at Stanford, Calif., under the direction of Dr. S. French is doing applied research on culturing of algae and fundamental photosynthesis research.

(3) At the University of Texas, Dr. Jack Myers is studying mass culturing of algae and the uptake of fission products by algae. This project has been partially supported by the AEC for over 3 years and recently Carnegie Institute has also been giving it some support.

(4) At the University of Maryland Dr. Cross has a small project on growing of algae supported by Carnegie Institute.

Most investigators concerned with photosynthesis are also interested in algae growing, but those who are particularly enthusiastic about its possibilities are: Vannevar Bush, John Burley, Carnegie Institution; Farrington Daniels, R. H. Burris, J. F. Stauffer, M. Johnston, University of Wisconsin; M. Calvin, A. A. Benson, University of California; Dean Burk, National Institutes of Health.

The successful mass culturing of algae will require the cooperation of biologists and industrial engineers. (1) Botanists and bacteriologists should cooperate in choosing algae with best growth characteristics; (2) biochemists and botanists must choose algae that will fix atmospheric nitrogen as well as $CO_2$ and thus eliminate a feeding requirement; (3) engineers, biochemists, and bacteriologists are needed to work out growth-chamber techniques for mass culturing of algae as they now grow molds for penicillin; (4) nutritionists can determine the food values; and (5) chemists can study the conversion of the organic material for our industries.

*Possibilities and plans for the future*

(1) Much more fundamental research over a period of 5 to 25 years is necessary to unravel the intricate steps and mechanisms by which the plant can convert $CO_2$ and water to sugars and product $O_2$.

(2) This field being scientifically very complex, future conferences and surveys would aid in outlining the most profitable avenue of research. AEC, ONR, NIH, and Carnegie Institute should be interested in supporting such a joint conference.

Concurrently a detailed survey by a biochemist might be made of the facilities and the investigators that are working on photosynthesis and algae culturing. Such a survey would not be complete unless it also included laboratories in Europe. European scientists are more aware of the potentialities of photosynthesis than we are, and they are doing a large amount of work on it.

(3) At present it is difficult to estimate the number of people and dollars directed toward a solution of photosynthesis or algae culturing. Probably a maximum of 100 people in the United States are studying some phase of photosynthesis this year and are using an annual budget of $700,000. Mass culturing of algae has received in the past much less attention or support.

To encourage more rapid advance in these fields requires both men and money, but manpower is definitely the bottleneck. It takes 8 to 10 years or longer after high school to train a doctor of philosophy in biochemistry, biophysics, bacteriology, or botany to do competent research in photosynthesis.

Thus, today we can give ample support to those so trained and make it possible that more graduate and undergrate students can stay in school and be trained in this field. A doubling or tripling of funds available for this type of research would increase somewhat the output of the men in this field and might also pull investigators trained in other fields of biology into photosynthesis research. While considerably more money can be spent on photosynthesis research, unlimited funds will certainly not solve the problem. Nevertheless, the support of photosynthesis research in the past has been very modest indeed when compared with the substantial investment in other major biological fields.

(4) With a complete understanding of photosynthesis it may be possible to make the process go in a test tube. Each time something new is discovered about each one of these steps the newspapers claim that soon we will be producing food by this method. At this time this is gross exaggeration.

Dr. Hollaender, director of the AEC Oak Ridge National Laboratory, has written, "I personally feel that too much is being spent on the study of quantum efficiency of photosynthesis since the question of whether 4 quanta or 8 quanta are required is not the most important question." The approach from the biochemical angle trying to elucidate the chemical steps in the process has considerable scientific promise and should be more valuable industrialwise at present.

(5) Brighest hope for food production at present lies in the mass culturing of algae now mainly being sponsored by Carnegie Institute. The use of algae for food is still somewhere between the speculative stage and the first trials.

Future research in this field will be of value to the AEC for it can be applied to the waste-disposal problems. Mass culturing of algae should also become of interest to oil and chemical companies. In the very long range perspective industry may benefit from such research as algae may be their ultimate carbon source for synthesis work.

*Atomic Energy Commission partially supported research in photosynthesis* [1]

| Institution | Title | Investigator | AEC total support | Number man-years scientist |
|---|---|---|---|---|
| Arkansas, University of | Intermediary metabolism of photosynthesis bacteria. | J. M. Siegel | $11,800 | 1.0 |
| Brookhaven National Laboratory. | Metabolism and photosynthesis in plants. | M. Gibbs | [2] [3] 25,000 | 1.2 |
| California, University of | The path of carbon in photosynthesis. | M. Calvin and A. A. Benson. | [3] 83,000 | 4.5 |
| Oak Ridge National Laboratory. | Biochemical and biophysical investigations in photosynthesis with particular attention to the light reaction. | W. A. Arnold | [3] 40,000 | 2.5 |
| Smithsonian Institution | Biochemical investigation of photomorphogenesis in green plants. | R. Withrow | 9,600 | 1.0 |
| Utah, University of | Studies of photosynthesis processes in cell-free preparations. | R. Lumry and J. C. Spikes. | 24,000 | 2.0 |

[1] Direct work on photosynthesis; other projects in plant biochemistry may be related scientifically.
[2] This value is an estimate of the total effort of this project which is directly related to photosynthesis.
[3] About half of this value is for indirect expenses or overhead attributed to this project at a national laboratory.

## ISOTOPE DISTRIBUTION PROBLEMS

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., May 7, 1951.*

DEAR SENATOR MCMAHON: As you know, the Commission's program for the international distribution of radioisotopes, announced on September 3, 1947, has been limited to radioisotopes of 20 elements, including those particularly useful in biology and medicine. However, the Commission's Isotopes Division has received continuing foreign inquiries for isotopes heretofore available only domestically, and for permission to use the substances for industrial purposes. United States commercial firms have requested permission to sell industrial equipment utilizing radioisotopes (for example, beta-ray thickness gages) for use abroad. It has been necessary to deny such requests under the prevailing regulations.

The principal uses to which isotopes are put, domestically and abroad, are still scientific research and medical therapy. Nevertheless, uses valuable in industrial research and applications are rapidly developing. Tagged isotopes have proved valuable, for example, as tracers in studying industrial processes. Probably the most clearly demonstrated application to date is in the measurement of thickness of materials, utilizing such equipment as beta-ray thickness gages. Another application involves the use of strong gamma ray emitting radioisotopes as substitutes for X-ray machines or radium for photographing internally heavy objects (such as metal castings) which are opaque to ordinary light. Thus, the term industrial application of isotopes refers to the application of isotopic materials in the measurement or control of the usual industrial processes. These uses of radioisotopes as a tool are distinct from industrial use of nuclear processes for the production of heat, power, or fissionable material.

The Canadians and British distribute to other countries radioisotopes produced in their respective nuclear reactors. The programs of these two countries, considerably broader in scope than our present program, include making radioisotopes available for industrial research and applications.

After careful study, the Commission has recently approved plans for the following alterations in the international program for radioisotopes:

1. All radioisotopes, with the exception of tritium, which are distributed domestically, will now be available for international distribution.

2. Irradiations of materials furnished by foreign applicants will be performed, with the same controls as are exercised for domestic distribution.

3. Radioisotopes distributed abroad will be available for " * * * uses in scientific research, medical *and industrial* research, medical therapy and *industrial applications*." (The italicized sections refer to the new features.)

The expanded program will be administered in the same manner as the earlier one has been. All applications will be submitted to the Isotopes Division, Oak Ridge, through the official representative of the country concerned. After review, the Isotopes Division will issue authorization for procurement from the proper supplier. Progress reports will be required every 12 months. Under the past program 34 countries have completed arrangements for receipt of reactor-produced isotopes, and shipments have been made to 30 of these countries. The expanded program has been discussed with representatives of Canada and the United Kingdom, in line with the past practice of consulting with these countries regarding our respective isotope programs.

We are satisfied that the benefits of broader foreign distribution can be achieved without impairing in any way the domestic program. We are also convinced that the program is wholly consistent with the paramount objective of assuring the common defense and security.

We expect to announce the changes described above in approximately 2 weeks. If you or other members of the joint committee desire any further information, please feel free to call upon us.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States*

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CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*May 9, 1951.*

Mr. GORDON DEAN,
*Chairman, United States Atomic Energy Commission, 1901 Constitution Avenue, Washington, D. C.*

DEAR MR. DEAN: I have read with a great deal of interest a letter dated May 7, 1951, from Mr. Sumner Pike, Acting Chairman, regarding alterations in the program for the international distribution of radioisotopes recently approved by the Commission. So that I may more clearly understand the effects of the proposed changes would you kindly supply me with answers to the following questions:

(1) What are the benefits which the Commission believes will accrue to the United States from broader foreign distribution?

(2) Why specifically is this program being advanced at this time?

(3) Could the industrial advantages derived from American isotopes by foreign nations be used to the disadvantage of the United States, either industrially or in case of war?

(4) To what extent will the new program compete with Canadian and British programs for the international distribution of radioistopes? Are the British and Canandians unable to supply foreign customers because of limited production facilities and/or price? Has the Commission considered the advantages and disadvantages which may result from competition with these friendly powers?

(5) Please give the number and character of instances in which the Commission refused to sell isotopes to American industrial firms because the end item was to be exported? Please give the number and character of the requests from foreign sources for isotopes for industrial purposes heretofore available only domestically.

(6) Please estimate the cost of additional equipment and facilities for the expanded program and the cost of operation per year based upon the backlog and anticipated increase in orders of isotopes for industrial purposes.

(7) Is there any provision for priority or price preference for domestic over foreign use?

(8) What effect will the new program have on the prospective growth and development of private industries involving the use of byproduct materials?

**(9) Would you please comment fully on the relationship between the alterations in the radioisotope distribution program and the pertinent provisions of the act.**

* * * * * * *

**Sincerely yours,**

BRIEN MCMAHON,
*Chairman.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., June 28, 1951.*

DEAR SENATOR MCMAHON: This is in reply to your letter of May 9, 1951, regarding revisions in the program for international distribution of radioisotopes. The following are answers to the specific questions you presented:

*(1) What are the benefits which the Commission believes will accrue to the United States from broader foreign distribution?*

We believe that the advantages which will accrue to the United States are clearly stated in terms of engendered good will of those countries participating in the isotopes program, and the benefits which will accrue to the United States by virtue of the knowledge which will be developed. We also believe that, on balance, the national defense and security will be strengthened by such action. The foremost immediate good to be foreseen is increased esteem for the United States in the eyes of scientific and technical people both abroad and in this country.

The results of foreign researches and applications, when published in accordance with the required undertakings, will be available to the United States for whatever exploitation they suggest. With its superior technological potential, the United States can expect to profit more quickly and more fully than most other nations from exploitation of published scientific findings. This has been the fact with many past discoveries, including the discovery of nuclear fission.

We should like to point out also that we believe the proposed program to be generally consistent with the established foreign policy of the United States, in such programs as foreign aid to friendly countries. Before approving this program the Commission requested the opinion of the Department of State on the proposal. The Department of State replied on June 6, 1950, stating in part "* * * It would appear that these recommendations are in keeping with the Department's policy to encourage making available the peaceful benefits of atomic energy on the broadest possible basis consistent with the national defense and security and existing American legislation."

Dr. J. R. Oppenheimer, chairman of the General Advisory Committee to the AEC, expressed the basic reasons for international distribution of radioisotopes when he stated:

"* * * (isotopes) were discovered in Europe; they were applied in Europe; they are available in Europe, and the positive arguments for making them available * * * lie in fostering science; they lie in making cordial effective relations with the scientists and technical people of western Europe; they lie in assisting the recovery of western Europe; they lie in doing the decent thing."

In our opinion, these reasons are equally valid at the present time.

The General Advisory Committee was informed of the proposed expansion of the foreign program and commented at its meeting of March 30, 1950, as follows: "We were glad to learn of the proposals * * * for extending to foreign distribution a wider group of radioactive isotopes. We believe that this involves no foreseeable risk with regard to the safeguarding of classified information, that it will promote and stimulate the growth of science and the cooperation between scientists which holds such promise for our future."

The Advisory Committee on Isotope Distribution was asked to consider the proposed revised program at its annual meeting, March 23 and 24, 1950, and the committee endorsed the proposed changes and recommended further that the Commission work toward a program which imposes no more restrictions on foreign purchasers of radioisotopes than are imposed on domestic purchasers.

As was mentioned in our letter of May 7, 1951, commercial concerns in this country, particularly those selling radioisotope-labeled compounds and industrial equipment (such as beta ray thickness gages) containing radioactive

materials provided by the AEC, are interested in the expanded markets thus offered.

In addition to the positive advantages given above, we believe that a failure to expand the number of materials available would have a definitely adverse effect on unclassified scientific cooperation with friendly nations, particularly since neither the British nor Canadians have limitations similar to those of the United States.

*(2) Why specifically is this program being advanced at this time?*

There is nothing expressly significant about instituting the program at this particular time. The AEC has considered this matter for some time, in fact it has been in mind ever since the initial limited program was put into effect. Much time has been consumed in obtaining the considered views of various advisory groups to the Comimssion as well as other agencies. The Commission itself has given this problem long and serious thought and has carefully weighed advantages and possible disadvantages. The present action was simply the culmination of these studies.

Technical experience has been accumulating abroad in the uses and applications of radioisotopes over the period of the past four or five years and the demand for additional isotopes for research and for industrial applications would normally be expected to increase. Also, of course, we wished to be certain that the radioisotope supplies and production facilities would be adequate to cover anticipated requests without affecting the domestic program in any way, and without interfering with any other activities of the Commission's program. This we now believe to be the case. In fact, the anticipated requirements for radioisotopes for filling foreign requests will probably represent only a small percentage of domestic requests.

*(3) Could the industrial advantages derived from American isotopes by foreign nations be used to the disadvantage of the United States, either industrially or in case of war?*

It is difficult, of course, to give an unqualified answer to your question as to whether the industrial advantages derived from the use of American radioisotopes by foreign nations could be used to the disadvantage of the United States, either industrially or in time of war. Actually, of course, many types of exports of the United States represent industrial advantage to foreign nations and could conceivably be used to the disadvantage of the United States either industrially or in case of war. Radioisotopes are analogous to other technical tools and instruments in this regard, but their significance is small compared to the total exports in this general area. The procedures for the control of foreign shipments of radioisotopes, which are described later, are believed to be consistent with or more restrictive than the general export control regulations of the United States in the field of technical tools and instruments.

We know of no military applications for the relatively small quantities of radioisotopes which would be involved in foreign distribution which we could consider to be in any way serious, and of course, radioisotopes are not authorized to be distributed abroad for military use. With respect to industrial applications, while some are known and others will be developed, we believe such developments will be relatively minor compared to normal industrial progress in improving techniques and processes. Nearly all research and development work performed with radioisotopes in the United States is published. Thus in general the opportunity to make use of these results already exists, since many radioisotopes are available from the United Kingdom and Canada and other countries can produce, or will soon be able to produce, their own as well. Even cyclotrons can, of course, produce small, though useful, amounts of radioisotopes. Many industrial applications not yet developed are known in theory and the present advancement comes largely from development of equipment and techniques for use.

We should like to outline here the safeguards with respect to granting a request for radioisotopes from an individual or concern in a foreign country. In the first place, each country which desires to have radioisotope applications submitted by eligible users in that country must first address a note to the Secretary of State of the United States stating:

(*a*) The name of a representative (or agent) in the United States who will handle matters connected with radioisotope shipments. (Such representative may be a diplomatic official, a commercial concern, or any other person or corporation selected by the foreign government. The representative should be authorized to maintain liaison with the United States Atomic Energy

Commission and to complete financial and shipping arrangements, such as payments for materials, deposits for shipping containers, and arrangements for transportation.)

(*b*) That the representative is authorized to certify in behalf of the Government to the accuracy of the information set forth in each application for radioisotopes.

(*c*) That the foreign government understands that there are special health and safety hazards arising out of the possession, handling, or use of radioisotopes, and that such hazards require special protective measures.

(*d*) That the foreign government agrees that neither the United States Government nor any United States distributing agent shall be responsible for injury or damage caused by, or in the application of, any radioisotopes delivered.

Following this, the Department of State notifies the foreign government of its action with respect to admission into the program, conferring with the Atomic Energy Commission in the interim if it is deemed necessary, and simultaneously notifies the Atomic Energy Commission. The country, once admitted, is then free to submit applications for radioisotopes, through and certified by its official representative. These certified applications, in addition to information as to quantity and isotope desired, must contain the following statement:

"The undersigned, in behalf of the government he represents agrees to the following undertakings:

"(*a*) To furnish the United States Atomic Energy Commission upon request, or in any event at intervals of not more than 1 year, results of progress obtained with the use of radioisotopes procured from its facilities.

"(*b*) That the materials will not be used in a manner other than described in this request.

"(*c*) To facilitate exchange of information and visits relative to work with radioistopes between qualified scientists in accordance with normal scientific practice."

In summary, with regard to this question, we believe that the industrial assistance afforded friendly nations by the new program will be slight compared to normal practice, is in accord with the foreign commerce policies of the United States, and is protected by safeguards against misuse in the procedures for approving applications. In case of war we do not see how the applications of these small amounts of radioisotopes could add significantly to any military potential of another nation.

(*4*) *To what extent will the new program compete with Canadian and British programs for the international distribution of radioisotopes? Are the British and Canadians unable to supply foreign customers because of limited production facilities and/or price? Has the Commission considered the advantages and disadvantages which may result from competition with these friendly powers?*

There has been full cooperation among the United States, United Kingdom, and Canada with regard to the international distribution of radioisotopes. The programs of the three countries are not strictly competitive, but rather are complementary. For example, the British can, and for the most part do, furnish short-lived radioisotopes to western European countries; we distribute these materials to Latin-American countries. The Canadian reactor has features which make it unique, so that it can furnish materials in forms not available from other sources. Applicants in the United States are obtaining special materials from Canada—for example, high specific activity cobalt-60 for industrial radiography. We in the United States can furnish isotopes in a greater variety of forms than can either the United Kingdom or Canada; we make shipments of complex isotope-labeled compounds to the British and Canadians.

Since the United States pioneered in the distribution of reactor-produced isotopes, it naturally was the first to establish pricing policies. When the United Kingdom and Canada were in a position to initiate isotope programs, both followed our policies and their prices are on a scale similar to ours. Such differences in prices as do exist would not in themselves be the determining factor in choosing one country over another as a supplier. Differences in shipping costs are a more important economic consideration.

Members of the Commission's staff met with representatives of the United Kingdom and Canada to discuss this program before final approval was given. At this meeting the proposed expansion of our program was outlined and it was endorsed by both the United Kingdom and Canada. Therefore, the Commission

has not only considered the situation with respect to these free powers, but we have consulted with them before taking any definite action.

(5) *Please give the number and character of instances in which the Commission refused to sell isotopes to American industrial firms because the end item was to be exported? Please give the number and character of the requests from foreign sources for isotopes for industrial purposes heretofore available only domestically.*

Attached are two lists concerned with industrial applications and inquiries pertaining to our foreign program. One list (list A) shows United States firms that have indicated interest in exporting radioisotopes for industrial applications; the other list (list B) shows inquiries from foreigners on the same subject. We do not believe that either is indicative of the total interest that would be shown if an announcement of industrial availability were made.

(6) *Please estimate the cost of additional equipment and facilities for the expanded program and the cost of operation per year based upon the backlog and anticipated increase in orders of isotopes for industrial purposes.*

It is not anticipated that the expanded program will necessitate any additional facilities for production, supply, or distribution of radioisotopes. At the present time, numbers of shipments under the international program constitute about 5 percent of the number for entire distribution program, and the increase in available items probably will not cause this percentage to be altered appreciably.

There would be no increased cost to the Untied States for operation of this program. At the present time prices are set so as to recover all out-of-pocket costs for production, separation, and packaging of radioisotopes. The expanded program would mean slightly increased revenue. Prices are identical (except for shipping charges) for domestic and foreign radioisotopes, but whereas radioisotopes are made available free of production costs in the United States for cancer research and therapy, no isotopes are distributed free abroad, and such action is not contemplated.

The supplies of radioisotopes are, in general, sufficient to fill any reasonable demand both within the United States and from abroad. Actually, most of the orders for routinely-produced isotopes for Western European countries are being met by the United Kingdom. The expected increase in orders from the United States would be small and doubtless limited to special materials, supplementing the Canadian and British distribution.

(7) *Is there any provision for priority or price preference for domestic over foreign use?*

As mentioned above, the prices charged for radioisotopes are the same for domestic distribution and export. There is no AEC subsidy in our foreign program; for example, foreign users pay catalog prices for all radioisotopes even though they may be used for cancer research.

Since the pricing schedule has been established so as to recover production and distribution costs, we believe that there should be no price differential unfavorable to foreign applicants. Also, as stated previously, the prices charged by the Canadians and British are very close to ours.

In any case of limited supply of an isotope, United States customers always receive prior consideration and all United States orders would be filled first. However, it is not anticipated that a priority system will need to be invoked.

(8) *What effect will the new program have on the prospective growth and development of private industries involving the use of by-product materials?*

The expanded international program, in itself, would probably have little noticeable effect on the development of private industry utilizing radioisotopes. As yet, the future extent of industrial utilization, even in this country, is quite uncertain. Certain applications have been developed and their use in these cases is becoming routine. Other applications are certain to be found and it is conceivable that larger scale uses will emerge, but it will undoubtedly be a matter of economics—whether radioisotopes can do certain jobs more cheaply and efficiently than other means—which will determine this. While certain uses are developed and others look promising, it cannot be said at this time that radioisotopes have as yet made a large impact on American industry.

*(9) Would you please comment fully on the relationship between the alterations in the radioisotope distribution program and the pertinent provisions of the Act.*

The radioisotopes presently and proposed to be distributed by the Commission are byproduct materials within the definition of Section 5 (c) (1), and do not include source or fissionable materials. They are distributed domestically and abroad under the authority of Section 5 (c) (2), which provides:

"5 (c) (2). DISTRIBUTION.—The Commission is authorized to distribute, with or without charge, byproduct materials to applicants seeking such materials for research or development activity, medical therapy, industrial uses, or such other useful applications as may be developed. In distributing such materials, the Commission shall give preference to applicants proposing to use such materials in the conduct of research and development activity or medical therapy. The Commission shall not distribute any byproduct materials to any applicant, and shall recall any distributed materials from any applicant, who is not equipped to observe or who fails to observe such safety standards to protect health as may be established by the Commission or who uses such materials in violation of law or regulation of the Commission or in a manner other than as disclosed in the application therefor."

Furthermore, in the Commission's judgment the export of these materials is in accord with the policy of the act set forth in section 1 (a) that, "subject at all times to the paramount objective of assuring the common defense and security, the development and utilization of atomic energy shall, so far as practicable, be directed toward improving the public welfare, increasing the standard of living, strengthening free competition in private enterprise, and promoting world peace."

Section 5 of the act, titled "Control of Materials" sets forth a detailed control system for the three kinds of specific materials described in that section. It will be recalled that these three kinds of materials are (1) fissionable materials (sec. 5 (a)), source materials (sec. 5 (b)), and byproduct materials (sec. 5 (c)). In contrasting the different statutory control requirements for each of these three types of materials, it seems to us that the act does not establish a bar to the export of byproduct materials for "research or development activity, medical therapy, industrial uses, or such other useful applications as may be developed" (sec. 5 (c)). There is no ban on the export of byproduct materials provided in the section dealing with byproduct materials. This absence of any export control provision is particularly significant when compared with the specific export provisions applicable to the two other kinds of materials described in the "Control of Materials" section. Regarding fissionable materials, section 5 (a) (3) provides that—

"It shall be unlawful for any person, after 60 days from the effective date of this act, to (A) possess or transfer any fissionable material, except as authorized by the Commission, or (B) *export from or import into the United States any fissionable material*, or (C) directly or indirectly engage in the production of any fissionable material outside of the United States." [Italics added.]

Section 5 (d) provides as follows:

"The Commission shall not—

"(1) distribute any fissionable material to (A) *any person for a use which is not under or within the jurisdiction of the United States*, (B) *any foreign government*, or (C) any person within the United States, if, in the opinion of the Commission, the distribution of such fissionable material to such person would be inimical to the common defense and security." [Italic added.]

Regarding source material, section 5 (b) (2) provides as follows:

"*License for transfers required.*—Unless authorized by a license issued by the Commission, no person may transfer or deliver, receive possession or title to, *or export from the United States any source material after removal from its place of deposit in nature*, except that licenses shall not be required for quantities of source materials which, in the opinion of the Commission are unimportant." [Italic added.]

Taking, then, the "Control of materials" section as a whole, particularly noting that export controls are expressly made applicable to both fissionable and source materials, as contrasted with no express export limitation for byproduct materials, it seems reasonable to conclude that the Congress did not intend to prohibit the export of byproduct materials for the purposes set forth in the statute, namely, research or development activity, medical therapy, industrial uses, or such other useful applications as may be developed. It is clear, of course, that the export of byproduct materials is subject to the paramount objective, set forth in the statute, of assuring the common defense and security.

As you know, the Commission's considered view has been that, in the context of section 10 (a) (1), information about these byproduct materials is not information about atomic energy or the use of atomic energy for industrial purposes. Furthermore, the purpose of section 10 (a) (1), as we understand it, is related to the dangers of other nations developing atomic energy for industrial power and in that manner providing the basis for making atomic weapons. Thus, the shipment of isotopes abroad for industrial purposes is not at odds with the purpose of the provision.

The Commission is aware of the fact that there may be differing views as to the meaning of the act relating to the export of isotopes and that members of the joint committee have stated that the statute is ambiguous on this point. It was for this reason that the Commission prepared an amendment to section 5 (c) (2) and submitted it to the joint committee by letter of May 31, 1950.

In summary, it is the Commission's view that this expanded radioisotope program is consistent with the McMahon Act and is in the best interests of this Nation's atomic energy program.

If there is any further information you desire, please let us know.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
SUMNER T. PIKE, *Acting Chairman.*

HON. BRIEN MCMAHON
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

(Enclosures.)

LIST A.—*Domestic inquiries for export of isotopes for industrial use*

| Requester | Country | Isotope | Purpose |
|---|---|---|---|
| Tracerlab, Inc., 130 High St., Boston 10, Mass. | Foreign countries | Strontium 90, cesium 137, ruthenium 106. | Beta ray thickness gages. |
| General Electric Co., 1 River Rd., Schenectady, N. Y. | Canada, France | Strontium 90 | Do. |
| Mr. H. R. Isenburger, St. John X-Ray Laboratory, Califon, N. J. | Germany | Cobalt 60 | Industrial radiography |
| Mr. Morgan Walker, Iraq Petroleum Co., 500 Fifth Avenue, New York, N. Y. | Lebanon | do | Do. |
| Mr. Walter W. Offner, X-ray Engineering Co., 444 Market St., San Francisco 11, Calif. | Saudi Arabia, Syria. | do | Tracer element in oil pipelines. |

LIST B.—*Foreign inquiries for industrial use of isotopes*

| Requester | Country | Isotope | Purpose |
|---|---|---|---|
| Dr. Hilde Levi, Zoophysiological Laboratory, University of Copenhagen, Copenhagen, Denmark. | Denmark | Strontium 90 | Beta ray thickness gages. |
| Dr. Andre E. N. Germaix, Societe d'Application de la Physique Moderne, Paris, France. | France | Strontium 90, yttrium 90. | Study and design beta gages. Study design of radioactive level gages. |
| Do | do | Cobalt 60 | Study and design radioactive gages. Study and design medical applicators. |
| Dr. Ivan Peychez, St. Gobain Industries, Paris, France. | do | do | Glass manufacture. |
| Societe des Forges and Chantiers de la Mediterranee, La Seyne, France. | do | do | Industrial applications. |
| Mr. E. Pruvot, Societe Pechiney, St. Jean de Mauriene, France. | do | Not stated | Radioisotopes in the aluminum industry. |
| Dr. Luigi Rocenvilla, L. Manetti-H. Roberts & Co., Via Cavour 37, Firenze, Italy. | Italy | do | Industrial research. |
| Mr. Takayuki Somiya, Faculty of Engineering, University of Tokyo, Tokyo, Japan. | Japan | Carbon 14 | Study end point of the determination of carbon in pig iron, steel, and alloy-steel by rapid combustion. |
| Do | do | Sulfur 35 | Do. |
| Mr. I. Kkenouye and Mr. T. Kaida, Kurosaki Fire Brick Manufacturing Co., Ltd., 535 Fujita Yohata, Fukouka, Japan. | do | Calcium 45 | Study behavior of chemical components of fire brick under high temperatures in order to improve the quality of the brick. |
| Mr. Saizon Ohno, Mitsubishi Electrie Engineering Laboratory, Minamishimizu, Amagasaki, Hoyogo-ken, Japan. | do | Cobalt 60 | To develop a thickness gage and defect-explorer for metals. |
| Mr. Gunji Shinoda, Department of Microtechnique, Faculty of Technology, Osaka University, Osaka, Japan. | do | Iron 59 | Study abrasion of steel and the properties of surface films of lubricants. |
| Mr. I. Kkenouye and Mr. T. Kaida, Kurosaki Fire Brick Manufacturing, Co., Ltd., 535 Fujita Yohata, Fukuoka, Japan. | do | do | Study behavior of chemical components of fire brick under high temperatures in order to improve the quality of the brick. |
| Dr. L. V. Ouwerkerk, Rontgen Technische Dienst, Hengelo, Netherlands. | Netherlands | Not stated | Radiography. |
| Mr. A. Almar-Naess, Foreningen for Teknisk Rontgenkontroll, Blindern, Oslo, Norway. | Norway | Cobalt 60 | Industrial radiography. |
| Mr. Richardo Menendez C., manager, Siderurgica Modelo, S. A., Ejido 43, Desp. 502, Mexico, D. F., Mexico. | Mexico | do | Do. |
| Mr. Sanchez Serrano, Jefe S. Radiofisica, Consejo Superior de Investigaciones Cientificas, Instituto Nacional de Geofisica, Amaniel 2, Madrid, Spain. | Spain | do | Do. |
| Dr. C. G. Carlstrom, Royal Institute of Technology, Stockholm, Sweden. | Sweden | Cobalt 60 | Do. |
| Mr. M. Falk, M. Falk & Co., Ltd., London SW1, England. | United Kingdom | Cobalt 60, iridium 192, tantalum 182. | Do. |
| Lord Waleran, E. K. Cole, Ltd., London, England. | do | Strontium 90 | Industrial applications. |
| Molins Machine Co., Ltd., London, England. | do | do | Industrial research. |

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., October 10, 1951.*

**DEAR MR. BORDEN: Recently Mr. Walter A. Hamilton of your staff called me to inquire about five shipments of radioisotopes made under the Atomic Energy Commission foreign distribution program. Specifically he was interested in obtaining information concerning technical data we have obtained from the countries that received the materials in question.**

We are outlining below the results that have been submitted to us up to date.

1. Shipment 508—1 mc Iron 59 for Norway. To be used for an investigation of rate of diffusion of iron in steel under high temperatures.

The work done with this material was fundamental in nature dealing with the determination of the rates of diffusion of one metal into another at various temperatures. The particular phase studied by the Norwegians was the rate of self-diffusion of iron in iron alloys. The alloys chosen were two fairly common stainless steels, a low carbon structural steel and gray cast iron. The research resulted in obtaining a "diffusion coefficient," which is a useful figure in theoretical studies of metal behavior. A report of the work has been published in the Norgegian periodical "Tideskrift for Kjemi og Bergvesen," No. 1, 1951; the Atomic Energy Commission has received copies of the report and photostats are on file in the Division of Research. It might be mentioned that research of a similar nature is being undertaken at different institutions in the United States and the Norwegian work is just another instance of an approach to the general problem of obtaining diffusion data.

2. Shipment 613—15 mc Sulfur 35 for Sweden. To be used for (1) investigations of surface-active phenomena with Sulfur 35-labeled soaps and (2) studies of thin layers by means of soft beta radiation.

In the first problem, the research dealt with a problem in physics, i. e. changes in surface tension with variations of concentration of surface-active materials. Early work in this connection showed some anomalous results, particularly in the case of water solutions of surface-active compounds. Two United States scientists from Colgate-Palmolive-Peet Co. attempted to explain the fact that, at certain definite concentrations of surface-active agents, the surface tension reached a minimum value. Their data indicated that the incongruities were a function of the presence in solution of more than one type of surface-active material. The Swedish research workers continued this study with the use of isotope techniques (the earlier work was performed by conventional methods), and their preliminary results tended to elucidate the explanation of United States workers. In addition, a method was devised by the Swedish scientists for measurement of adsorption of surface-active compounds on solid surfaces in contact with solution. The entire research problem is of importance in connection with the development of synthetic detergents and the Swedish investigators are contributing fundamental knowledge to the field. As in the case of the shipment of iron to Norway, similar research is being carried on in the United States and the isotope technique is becoming the method of choice for such work.

The Swedish scientists have investigated the use of beta ray emitting isotopes such as S 35, C 14, Ra D&E, Sr 89, 90 for radiography of very thin sections. They have found that a satisfactory method is to concentrate the beta source to a small area and to place the specimen, attached directly to the photographic emulsion, at a distance of 5–10 cm. The main features of beta ray radiography are (1) inexpensive and rather simple equipment and (2) increasing availability of suitable radiation sources. The technique is suitable for study of thin layers (1–700 mg/cm$^2$) of such materials as metals, plastics, and textiles. A report of this use appears in Nature, *164*, 1086 (1949).

3. Shipment 667—10 mc. Sulfur 35 for Sweden. To be used in an investigation of Sulfur 35—labeled thiourea as an addition agent in copper electrolysis.

The labeled thiourea was synthesized according to a method described in a United States patent. The electrolysis was carried out in a two compartment cell, so that both anode and cathode solutions could be analyzed separately. The electrodes were both copper. Radioactivity measurements were made on the solutions and the electrodes as well.

The results showed:

(a) Thiourea forms a strong complex with the cuprous ion, but not with cupric ion. The complex is generally decomposed in the acid solution, particularly at higher temperatures, and the sulfur forms CuS which deposits on the anode as a dark brown layer.

(b) The sulfur from the thiourea is included in the deposited copper, often in considerable amounts.

(c) Thiourea makes the deposited copper finer grained and also hardens the copper.

4. Shipment 898—one Cobalt 60 Reference Source for Brazil. This material was to be used in a geophysical prospection program for the determination of underground position of some granite and limestone deposits.

Shipment was made on August 30, 1950. Reports are now due only once a year, and as yet none have been received covering the work for this authorization. If no report is received shortly, the official Brazilian representative will be reminded of the requirement under which the isotope was received.

5. Shipment 963—5 mc Cobalt 60 for Sweden. To be used to investigate the breakdown voltage stability in cold cathode tubes.

No report on this work has been received, inasmuch as shipment was made on November 17, 1950.

I trust that the above information will be useful. If I can be of further assistance, I shall be glad to do so.

Very sincerely yours,

PAUL W. MCDANIEL,
*Acting Director, Division of Research.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., August 9, 1951.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Capitol, Washington, D. C.*

DEAR MR. BORDEN: A few days ago, Mr. Edward Heller of your staff asked us if he could have a copy of our agreements with the Bendix Aviation Corp. and Tracerlab, Inc. I am attaching a copy of the agreement with Bendix. The agreement with Tracerlab is practically identical with the Bendix agreement except that paragraph 1 of the General Objectives reads as follows:

"1. Tracerlab, Inc., referred to hereafter in this letter as Tracerlab, desires to undertake a study of the problems of chemical processing of radioisotopes, and to determine the desirability of designing, constructing, and operating a nuclear reactor for the production of radioisotopes."

If you desire any further information, we will be glad to furnish it.

Sincerely yours,

PAUL W. MCDANIEL,
*Acting Director, Division of Research.*

Enclosure: Cy. Bendix agreement.

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., June 20, 1951.*

BENDIX AVIATION CORP.,
*1104 Fisher Building, Detroit 2, Mich.*
(Attention of Mr. M. P. Ferguson.)

GENTLEMEN: In accordance with your letter of February 28, 1951, and conversations between members of your staff and our Research and Reactor Development Divisions, we would like to submit to you this written agreement between Bendix Aviation Corp. and the AEC to be the first step in proceeding with your proposed study of a special isotope reactor. We propose that this letter serve as such an agreement and that if you accept the terms of it you so indicate by affixing the proper signature on this letter and one copy. Bendix may retain a signed copy, returning the signed ribbon copy to the Atomic Energy Commission.

*General objectives*

1. The Bendix Aviation Corp., referred to hereafter in this letter as Bendix, desires to undertake a study to determine the desirability of designing, constructing, and operating a nuclear reactor for the production of radioisotopes.

2. The Atomic Energy Commission is willing, in the interest of forwarding the atomic energy program, to assist Bendix in carrying out this study by making available pertinent information, and for consultation purposes, a reasonable share of the time of its personnel and that of its contractors.

3. One of the major objectives of the Commission's radiosotope program is the encouraging of wider industrial participation in the production and distribution of radioisotopes and in reactor developmental phases of radioisotope production; the Commission believes that this study is compatible with its objective.

*Terms of agreement*

1. *Purpose and scope.*—Bendix will make a survey and study of the Commission's reactor development program and radiosotope production, processing, utilization and marketing activities:

(*a*) To determine the engineering feasibility of Bendix' designing, constructing, and operating a radioisotope-producing reactor.

(*b*) To examine the economic and technical aspects of building and operating this reactor in the next few years.

(*c*) To determine the research and development work needed, if any, before such a reactor project can be undertaken.

(*d*) To study and evaluate the experience of the Commission with respect to the production, sale, distribution, and use of radioactive materials in order to properly associate commercial prospects with reactor costs and product output.

(*e*) To offer recommendations in a report to the Commission concerning such a project and industry's role in undertaking and carrying it out.

The work of Bendix under this agreement will be limited to this survey and study. The Commission's responsibilities in connection with this undertaking will be limited to the terms of this letter.

2. *Assistance from others.*—For the purpose of this study Bendix may employ, with the approval of the Commission, the services of other organizations and persons.

3. *Term.*—The study will begin upon acceptance of the terms of this letter and will be completed as soon thereafter as the work can be accomplished. In any case the study shall be completed and reported to the Commission no later than 1 year after the date of acceptance.

4. *Costs.*—All costs of carrying out this study will be borne by Bendix with the exception of costs to the Commission and its contractors incidental to making information and consultation services available.

5. *Reporting.*—Upon completion of the study Bendix will submit a report to the Commission, including its findings and recommendations. This report will be distributed as the Commission sees fit.

6. *Security.*—The Commission will grant security clearances, after completion of the necessary background investigations and reports, for a sufficient number of people in the employ of Bendix to permit the study to be carried out. The total number will be kept to a minimum. It is understood that no more than 10 such clearances, in addition to those already granted in connection with other atomic energy activities of Bendix employees, will be required. Additional agreements relating to security are contained in appendix A.

7. *Information.*—The Commission will make available at its own expense all the reports and other data pertinent to this study. Bendix will be given access to the Commission's files in order to determine what material is needed.

8. *Consultation.*—The Commission will arrange for representatives of Bendix to visit its laboratories and plants, and those of its contractors, for the purpose of observing and discussing matters pertinent to this study. These visits and discussions will be planned so as to interfere as little as possible with Commission work already under way. In this connection, it is understood that no more than 10 people, including technical personnel, will have access to Commission installations and consultants.

9. *Patents.*—In view of the preferred position in terms of access to information and know-how developed at public expense, which is not generally available to others but which Bendix will necessarily obtain in the conduct of this study, the Commission deems it important to provide that all inventions and discoveries made in the course of the work covered by this agreement be the property of the Government. Our standard patent article to accomplish this purpose is included in appendix A and will be considered to be a part of this agreement.

10. *General.*—A number of other matters on which agreement is necessary, including standard clauses required by law or by Commission policy, are annexed hereto as appendix A, which shall be deemed a part of our agreement. It is expected that Bendix will consult with the Commission prior to the release to the public of statements relating to the work under this agreement.

11. *Administration.*—Dr. K. S. Pitzer, Director of Research of the Atomic Energy Commission, or his designee, will have responsibility for the administration of this agreement on behalf of the Commission. Unless the Commission is notified to the contrary, Mr. L. A. Hyland, vice president, Bendix Aviation Corp., will be regarded by the Commission as having responsibility for administration of the agreement on behalf of Bendix.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
By M. W. BOYER, *General Manager.*

Accepted: (s) M. P. FERGUSON,
*President.*

July 9, 1951.

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Appendix A

1. PATENTS

a. Whenever any invention or discovery is made or conceived by Bendix, its employees, or its associates, in the course of any of its activities under this letter agreement, it shall furnish the Commission with complete information thereon; and the Commission shall have the sole power to determine whether or not and where a patent application shall be filed, and to determine the disposition of the title to and rights under any application or patent that may result. The judgment of the Commission on these matters shall be accepted as final; and Bendix, for itself, its employees and its associates agrees that the inventor or inventors will execute all documents and do all things necessary or proper to carry out the judgment of the Commission.

b. No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1946 shall be asserted by Bendix, its employees or its associates with respect to any invention or discovery made or conceived in the course of any of the activities of Bendix under this letter agreement.

c. Except as otherwise authorized in writing by the Commission, Bendix will obtain patent agreements to effectuate the purposes of paragraphs a and b above, from all persons who perform any part of the work under this letter agreement, except such clerical and manual labor personnel as will not have access to technical data.

2. SECURITY

a. In the performance of the work under this agreement Bendix shall, in accordance with the Commission's security regulations and requirements, be responsible for safeguarding restricted data and other classified matter and protecting against sabotage, espionage and theft, the classified documents, materials, equipment, processes and similar things, as well as such other material of high intrinsic or strategic value as may be in Bendix' possession in connection with performance of the work under this agreement.

b. Bendix agrees to conform to present security regulations and requirements of the Commission.

c. The term "restricted data," as used in this agreement, means all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power, but shall not include any data which the Commission from time to time determines may be published without adversely affecting the common defense and security.

d. Except as the Commission may authorize, in accordance with the Atomic Energy Act of 1946, Bendix shall not permit any individual to have access to restricted data until the Federal Bureau of Investigation shall have made an investigation and report to the Committion on the character, associations and loyalty of such individual and the Commission shall have determined that permitting such person to have access to restricted data will not endanger the common defense or security.

e. It is understood that disclosures of information relating to the work under this agreement to any person not entitled to receive it, or failure to safeguard any restricted data or any top secret, secret, confidential, or restricted matter or matter classified "official use only," that may come to Bendix, or any person under Bendix' control in connection with the work under this agreement, may

subject Bendix, its agents, employees and associates, to criminal liability under the laws of the United States. (See the Atomic Energy Act of 1946, 60 Stat. 755, as amended, Title 42, U. S. C. sec. 1801 et seq. See also Title 18, U. S. C. sec. 791–797 and Executive Order 10104 of February 1, 1950, 15 F. R. 597.)

f. Except as otherwise authorized in writing by the Commission, Bendix shall insert provisions similar to the foregoing in all agreements made in carrying out the work under this agreement.

3. DISCRIMINATION

Bendix, in performing the work under this agreement, shall not discriminate against any employee or applicant for employment because of race, creed, color or national origin. Bendix shall cause provisions similar to the foregoing to be inserted in all agreements made in carrying out the work under this agreement.

4. OFFICIALS NOT TO BENEFIT

No member or delegate to Congress or resident commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom, but this provision shall not be construed to pertain to this agreement if made with Bendix for its general benefit.

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## MILITARY CLEARANCES

ATOMIC ENERGY COMMISSION,
*Washington 25, D. C., January 10, 1951.*

DEAR SENATOR MCMAHON: This letter is to inform the joint committee of certain changes which are being made in the clearance procedures governing the handling of restricted data by the Department of Defense.

You will recall that in a number of past instances special arrangements have been made concerning dissemination of restricted data by the Department of Defense. Under such special arrangements the Department of Defense has disseminated certain types of restricted data subject to normal Department of Defense security standards for information of the particular classification involved, but without requiring that the recipient receive a specific clearance for access to restricted data.

Early arrangements of this type were summarized in the Commission's letter to the joint committee dated July 26, 1948. Subsequent arrangements were embodied in the Classification Guide for the Military Application of Atomic Energy, which was jointly worked out by representatives of the Commission and the Department of Defense. The initial version of this guide was forwarded to the joint committee by letter dated September 26, 1949, which pointed out that under the guide there was established a type B category of restricted data; that individuals and contractors under the jurisdiction of the Department of Defense were to be given access to type B restricted data under appropriate military classification safeguards without a specific restricted data clearance; and that the various categories of information included within type B restricted data had been determined on the basis of strong representations by the Department of Defense that the military operational phases of the atomic-energy program required wide dissemination of such restricted data and that such necessary dissemination was a practical impossibility when subject to the clearance requirements which had previously been in effect. From time to time this Classification Guide for the Military Application of Atomic Energy has been modified, with additional topics of restricted data being added to the type B category. These were communicated to the joint committee by letters dated January 6, 1950, May 10, 1950, and September 8, 1950.

For some months past the Department of Defense has been reexamining the entire problem of dissemination of restricted data to its personnel and its contractors, in the light of the Department's increasing operational responsibilities. As a result of this reexamination the Commission received a letter from General Marshall dated October 2, 1950, outlining the difficulties being experienced by the Department of Defense in complying with the personnel clearance requirements established by existing agreements between the Commission and the Department of Defense. The letter set forth the proposals of the Department of Defense for meeting those problems so that operational com-

mands could attain a degree of proficiency and readiness consistent with the international situation and demands of national security.

A copy of General Marshall's letter is enclosed for the information of the joint committee. You will see that it proposes that access to atomic energy information, including restricted data, within the Department of Defense and its contractors would be governed not by special clearance procedures but by the regular clearance procedures prescribed for top secret, secret, and confidential data, as set forth in the appropriate sections of the June 14, 1950, directive of the Secretary of Defense (copy also enclosed).

After discussion of these matters with the Military Liaison Committee, the Commission advised the Department of Defense that it was prepared to agree to the modifications in existing arrangements which General Marshall had proposed. In view of the interest which the Department of Justice has had in this subject since initial discussions were held in 1947, the Commission likewise brought the proposals to the attention of the Attorney General, and has now been advised that the Department of Justice interposes no objection to the proposals.

The Department of Defense has prepared a directive designed to place these proposals in effect, and it is our understanding that such a directive will be issued very shortly.

The Commission will be happy to furnish you with any further information which the joint committee may desire. In addition, it is our understanding that the Department of Defense would be glad to furnish the joint committee any further information that may be desired concerning the operational requirements which led to the determination by the Department of Defense that these new arrangements were necessary in the interest of our national security.

Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION,
GORDON DEAN, *Chairman.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

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THE SECRETARY OF DEFENSE,
*Washington, October 2, 1950.*

DEAR MR. DEAN: As you are aware, current procedures for the clearance of personnel of the Department of Defense for access to restricted data, as defined by Public Law 585, were established some 3 years ago by joint agreement and were implemented within the Military Establishment by directive of the Secretary of Defense, dated December 22, 1947. Participation by the Federal Bureau of Investigation in these clearance procedures was directed by memorandum of the Attorney General to Mr. Hoover dated September 12, 1947.

While these procedures were then considered adequate for the immediate requirements of the Military Establishment, the expanding military applications of atomic energy soon created a requirement for background investigations of such magnitude as to impose serious difficulties on the Military Establishment in the training and organization of operating units. An attempt was made to surmount this difficulty by the adoption in early 1949 of a "restricted data type B" classification for certain areas of information which could be disseminated in the Department of Defense under military classification procedures. This modification of the original agreement has proved inadequate to the growing requirements of the military services. During the past year the Department has become increasingly alarmed by the growing backlog of personnel clearances which must be processed in order that operational commands may attain a degree of proficiency and readiness consistent with the international situation and the demands of national security. The numbers of individuals involved and the delays incident to the clearance procedures now required have reached such proportions that a more workable method must be established without delay.

In recognition of the broad responsibilities of the Atomic Energy Commission for the control of the dissemination of restricted data under Public Law 585, the Department has given careful consideration to various means of improving the present critical situation without compromising those responsibilities. Extending the use of the "restricted data type B" classification and establishing broad areas of operational information thereunder has been suggested, considered, and rejected as a temporary expedient of dubious effectiveness which does not strike at the heart of the problem. The "restricted data type B" classification has already imposed an undesirable double standard for the treatment of identical subject matter by the Commission and the Department. Acceptance of that

double standard as a permanent solution to our common problem of security of information versus security in fact appears neither desirable nor necessary.

I submit for your consideration, therefore, the following proposal which would have the effects, first, of alleviating our most immediate and pressing difficulties dealing with the operational efficiency of our military forces; and, second, the establishment of a new set of basic principles which would clearly define the responsibilities of the Commission and the Department with respect to the safeguarding of atomic energy information and permit a single standard for the treatment of sensitive information on a need-to-know basis.

The immediate problem would be solved by accepting the security clearance procedures of the Department of Defense as suitable for the treatment of restricted data within the Department and its contractors. I believe it may be accepted that the military system for handling classified information, which for many years has served adequately for the protection of information of the most sensitive nature, is in fact adequate for the protection of information relating to atomic energy. The Military Establishment has held consistently that the provisions of Public Law 585 pertaining to the clearance of individuals for access to restricted data were not intended to apply to the Military Establishment, except possibly when individuals or agencies of the military were engaged as contractors to the Atomic Energy Commission. I believe that adoption of military clearance procedures as now standardized within the Department of Defense under the Secretary's directive of June 14, 1950 not only in fact provides the required degree of protection to restricted data, as defined in Public Law 585, but also meets the intent of the Congress in this respect.

Accordingly, if you agree, I propose to rescind the existing instructions to the Secretaries of the Army, the Navy, and the Air Forces, the Chairman of the Munitions Board, and the Chairman of the Research and Development Board, based on the Forrestal-Lilienthal agreement of December 22, 1947; and to issue an amendment to paragraph 18 of the attached directive of June 14, 1950, which would provide in substance that—

(a) Access to atomic energy information, including restricted data as defined by Public Law 585, within the Department of Defense and its contractors would be governed by clearance procedures prescribed for "Top Secret," "Secret," and "Confidential" data, as set forth in the appropriate sections of the June 14, 1950, directive.

(*b*) A joint Atomic Energy Commission-Department of Defense Classification Guide, establishing the appropriate military classifications for atomic energy information, including restricted data, will be promulgated as the basis for affixing "Top Secret," "Secret" and "Confidential" classifications in accordance with the degree of sensitivity of the subject matter. (A recommended joint guide will be transmitted to you by the Military Liaison Committee in the near future.)

(*c*) The Department will continue to work in close cooperation with the Commission in matters of atomic energy information by assisting in the maintenance of current classification guides, reporting loss or compromise of restricted data and in such other ways as may be necessary to insure practicable and satisfactory solutions of our common and individual problems in that area.

You will note that this procedure will not affect current clearance requirements for individuals of the Department of Defense in contacts with contractors of the Commission or when acting as contractors of the Commission. In deference to the opinions expressed by the Attorney General in his memorandum of September 22, 1947, access to restricted data under these circumstances would continue to be governed by the so-called "Q" clearance procedures requiring background investigations by the Federal Bureau of Investigation.

Adoption of the procedure outlined above will permit a rapid improvement in our military readiness posture; however, the fundamental weakness of a double standard in dealing with restricted data will remain. I believe that the interests of the Nation will be best served by the enactment of an amendment to Public Law 585 which will permit the application of uniform standards for the treatment of atomic energy information in a wholly practical manner fully consistent with the degree of sensitivity of each area or item. Should you agree such an objective to be desirable, the Department will be happy to support you in seeking appropriate legislation.

Faithfully yours,

G. C. MARSHALL.

Hon. GORDON DEAN,
*Chairman, United States Atomic Energy Commission.*

[The joint committee is currently considering legislation concerning military clearances as formally recommended by the executive agencies.]

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## BUGAS REPORT AFTERMATH

UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington, D. C., August 30, 1951.*

Mr. WILLIAM BORDEN,
*Executive Secretary, Joint Committee on Atomic Energy,*
*The Capitol, Washington, D. C.*

DEAR MR. BORDEN: The following information is provided in accordance with the conversation between Mr. William Sheehy and Mr. Walter J. Williams on July 27, 1951. You are familiar, of course, with the general background events leading to the submission of the report of the Security Survey Panel, which are briefly set forth in the following paragraph.

Subsequent to the resignation of Admiral Gingrich from the post of Director of Security in May 1949, the Commission strove unsuccessfully for several months to recruit a qualified replacement. During the process of searching for a new Director of Security the Commission felt increasingly the need of a thorough review of the security function within the Commission. Accordingly, in September 1949, the Commission agreed to appoint an ad hoc panel with the terms of reference with which you are familiar. In October Mr. Bugas agreed to serve as Chairman and on January 4, 1950, the panel held its first meeting with the Commission. The panel's review was completed on April 6, when its final report was submitted to the Commission.

Action on the panel's report was chiefly of two types. The first pertained to comments on operational security deficiencies and the second, of course, was with respect to the broad recommendation for a grouping of divisions under an Assistant General Manager. As to operational security deficiencies, the General Manager's office and the Commission's staff promptly and thoroughly reviewed these items and extensive efforts have been made to correct them.

We have gone through the panel's report and in the following paragraphs, have identified operational deficiencies the panel mentioned and have made a summary report of action to date on each item. The panel, of course, noted in its report that many of its recommendations set forth therein were already being followed. Ths situation was due to the fact that many of the activities and practices upon which he panel commented are subject to continuous review and improvement as a regular function of the headquarters as well as field organizations. It is therefore difficult to make a precise distinction between those actions attributable directly to the findings of the panel and those which have taken place as a normal result of experience, maturation of organization, and evolution of policies and procedures, and no such segregation has been attempted in the following summary.

*Page 15,[1] paragraph 1, Keeping the Security Division Informed*

The matter of keeping the Security Division advised of activities in which it has an interest has undergone, we believe, a distinct improvement since the time of the panel's survey. This has been brought about by an improvement in the timeliness and comprehensiveness of program information, and attendant security considerations, which is channeled from other divisions to the Security Division.

The Director of Security, of course, receives all pertinent staff papers and other communications from the General Manager, participates in all staff meetings of the General Manager, is invited to all Commission meetings and is careful to attend those at which issues of security interest are discussed. He is therefore aware of new programs which have security implications and he has full opportunity to present his views on any matter of security interest for consideration by the General Manager and the Commission.

*Page 15, paragraph 2, Devices for Applying Policies and Procedures;*
*Page 16, paragraph 3, Identifying Policies and Procedures;*
*Page 17, paragraph 3, Compilation of Manuals;*
*Page 17, paragraph 3, Review of Policies and Procedures*

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[1] All references are to page and paragraph numbers of the Report of Security Survey Panel.

(These four items are closely related and are included in the discussion below.)

Security directives, instructions and procedures, as established by General Manager bulletins, are continually reviewed by the Division of Security Staff. Implementing instructions and interpretations of existing policy are provided the field by means of security letters, memoranda, or by means of visits or inspections on the part of Washington security staff. Since the preparation of the Security Survey Panel Report, the following GM Security bulletins and Security letters have been issued or revised:

GM-2: Establishment of Necessary Measures to Insure Security of Classified Matter in Transit, Between Two Separate Facilities.
GM-19: Procedures for Safeguarding Top Secret Documents.
GM-39: Procedures on Termination or Transfer of Employment.
GM-56: Procedure for Authorization and Control of Visits.
GM-60: Inspections and Surveys.
GM-102: Decentralization of Authority to Reinstate Personnel Security Clearance of Former Employees.
GM-172: Procedure for Control of Reports Containing Weapon Data.
GM-176: Servicing and Control of Classified Research and Development Reports.
GM-187: Security Policies and Practices in the Area of Labor Relations.
Security Letter No. 10: Physical Security of Source and Fissionable Materials.
Security Letter No. 11: Procedures for Security Clearance.
Security Letter No. 12: Military Assignment of Personnel Employed on Atomic Energy Program.
Security Letter No. 13: Responsibility for Security of Documents Containing Restricted Data Transmitted to the Department of Defense.
Security Letter No. 14: Deletion of Facilities Where Security Interest Consists of Limited Quantities of Source-Fissionable Material.
Security Letter No. 15: Physical Security of Materials of Special Interest to the AEC.
Personnel Security Clearance Criteria for Determining Eligibility.
Security Clearance Procedures.

*Page 15, paragraph 4, Communication with the Field on Security Matters and Interchange Among Personnel*

Prior to the release of the Security Survey Panel Report steps had been taken to bring about more effective communication in security matters between the Washington staff and the field security offices and a better understanding of security problems through participation by representatives of the Division of Security in conferences convened by other divisions and by the General Manager with the various managers of operations.

In furtherance of this program, since March 1950 the Division of Security has held three 3-day conferences, one at Washington and two at Chicago, at which all aspects of the Commission's security program were fully discussed with key security personnel of all operations and area offices. In addition to these conferences the Director of Security and key personnel of the Division of Security have made numerous visits to the major operations offices in connection with security problems, have attended security conferences arranged by the offices of operations and have held seminars for the several offices of operations with regard to physical security standards. The security inspectors have regularly visited the operations and area offices and reported various aspects of security under their cognizance or which have come to their attention during the course of their visits. In the day-to-day operations of the security program, the Commission's policies are being interpreted and clarified for the field security offices by the Headquarters Security Division either through correspondence or by telephone conversations.

*Page 16, paragraphs 1 and 2, Security Inspections*

The comments of the panel on security inspections indicate some confusion and a lack of distinction between inspections which have as their objective an audit of the status of security of an installation and those inspections particularly of the headquarters staff which have as their objective staff follow-up with regard to effective application of policies and procedures and evaluations as to their efficacy in meeting the needs of field operations.

The first type of inspection which the Commission designates as a Facility Survey is, by its very objective, detailed and where deficiencies exist is critical. The other type of inspection is, of course, broader and more fundamental. The

operations offices are primarily concerned with the facility-survey type of inspection; and while the headquarters staff makes both types of inspections, its primary inspection function is the broader objective of interpretation and application of the Commission security policies and procedures and the over-all adequacy of its security system.

Due to serious security deficiencies which existed at critical facilities and in the system of document control during the first 2 years after the AEC became responsible for the atomic-energy program, emphasis during this period of "putting out fires" was of necessity on the critical side. It is appreciated that those directly concerned might feel that it was hypercritical.

Since that time, tested and firmed up security policies, standards and procedures have been established and promulgated and field inspections by headquarters staff have emphasized the broader objectives of uniform and consistent overall application of the security system, interpretation, and construction advice and guidance to the field in methods of application. The frequency of inspections of field installations and visits to operations offices by representatives of the Washington headquarters office has been considerably increased and every possible attention is being given to making such inspection thorough and practical.

The Commission has not found it feasible to rotate key security personnel between the field and the Washington headquarters. Reassignments of personnel have occurred which to some extent have contributed to the maintenance of a balanced viewpoint between Washington and the field. Many present employees of the Washington headquarters security staff have served in the field.

*Page 17, paragraph 3, Security Education*

To the end that its security-education program may be made more effective, it has been under study by headquarters staff representatives whose primary responsibility has been to examine both the mechanics of training and the principles upon which any sound program must rest and to effectuate recommendations and findings resulting therefrom.

*Page 18, paragraph 2, Removing Unnecessary Restrictions*

The Commission has taken many steps to remove unnecessary restrictions. An early step in this direction was the establishment of unclassified areas of research; another was the definition of open areas in connection with weapon effects, and preparation of a handbook on weapon effects. The opening of the gates at Oak Ridge was an example in the field of physical barriers. The exclusion areas located at the various field installations are reviewed from time to time with the view to simplifying access control. Division of Security personnel have made frequent visits to the field, particularly to new installations where special attention is given to locating various functions so as to improve access control and avoid unnecessary restrictions.

Normal declassification procedures provide a means of removing restrictions on data no longer requiring security controls. Various fields of endeavor are under active review to remove unnecessary security restrictions on the dissemination of data, control of material or the control of access. Arrangements have been made for representatives of the Nation's industry to review material believed to be of value to industry for the purpose of declassifying as much of this information as possible without adversely affecting the common defense and security.

The generation of new classified material is being more closely brought under control by the development of classification guides which describe in considerable detail the rules and principles of proper classification. These guides have been of substantial assistance in maintaining project-wide uniformity of classification, and in reducing overclassification to a minimum.

*Page 18, paragraph 4, Review of Personnel Security Policies*

The Personnel Security Policies and Procedures of the Commission are being constantly reviewed. Since the release of the Security Survey Panel Report the Commission's Administrative Review Procedure (formerly called the interim Procedure) has been completely revised, and revisions have been made in the Personnel Security Clearance Criteria for Determining Eligibility. Changes have also been made in the procedure for the screening and analysis of personnel clearance cases, and in the instructions for reinstatement of security clearance.

*Page 19, paragraph 3, Personnel Security Board Procedures*
*Page 21, paragraph 1, Time Required for Clearance*

As a means of reducing the time required for processing requests for personnel clearances, the field operating offices now forward requests for investigations directly to the Federal Bureau of Investigation. The Personnel Security Branch, Division of Security, AEC headquarters, now serves as an expeditng office and coordnates requests for investigations from the field with FBI headquarters, which supervises the investigations, assembles the results of investigations conducted by its field offices, and transmits the completed investigation to the Division of Security, AEC headquarters. For administrative reasons, the FBI has constantly maintained that the distribution of its reports must be handled through a central AEC office. All reports received from the FBI are dispatched to the operations or area security offices within 48 hours of their receipt in the Personnel Security Branch, and generally speaking, clearance determinations in clear cases are arrived at by the responsible security offices within a day or so following receipt of the completed investigation.

Continuous effort has been and is being made to reduce the time required for determination of clearance eligibility in cases containing substantially derogatory information. The time required for making determinations in these cases has been considerably reduced during the past year and further reduction is expected in the future. The reduction in time is being accomplished by each office of operations having a sufficiently large panel of eligibles for Personnel Security Board membership to enable the Manager to assemble a Board in a reasonably short time; by Managers of Operations emphasizing the necessity for prompt action in the handling of such cases in their offices; by more prompt preparation and referral of the transcript of hearings to the Board members, and by emphasis on the part of Managers of Operations on prompt recommendations by the Boards following the hearings.

*Pages 19 and 20, paragraph 5 et seq., Normal Personnel Screening*

With respect to the Security Survey Panel's comments concerning the necessity for preemployment checking prior to the submission of cases for background investigation, the Division of Organization and Personnel has issued a General Manager's bulletin which emphasizes the importance of thorough screening of applicants, both by AEC and its contractors, prior to initiating request for security clearance. It is, therefore, intended that prior to requesting security clearance, thorough checks will be made by the employer with references and previous employers to ascertain the applicant's general suitability for employment, including such factors as reliability and integrity, personal habits, professional qualifications and ability. The bulletin provides that in making these checks, the employer must exercise care to avoid the loyalty or security type investigations which are the responsibility of the FBI. While full compliance with the provisions of this bulletin have not yet been fully achieved, a great improvement has been noted since its issuance.

*Page 21, paragraph 2, Access by Foreign Nationals*

Any alien to be employed by the AEC or by an AEC contractor (with access to restricted data) must be investigated by the FBI and cleared by the AEC in accordance with normal procedures. The AEC has special requirements which must be met, however, before personnel clearance is initiated for aliens. These procedures require that the alien must possess unique or very unusual skills or talents; that the job for which he is being considered is essential to the atomic energy program; and that no United States citizen is available for filling the position.

The general problem involved in determining eligibility of individual representatives of foreign governments to receive classified United States Government data has been under study by the Interdepartmental Committee on Internal Security, and AEC representatives have participated in some of these discussions.

In addition, the AEC has participated in two security conferences (in 1950 and 1951) with British and Canadian representatives for the purpose of studying comparability of the security programs within these three countries.

*Page 21, paragraph 3, Rechecking of Personnel*

In evaluating the necessity for reinvestigation of atomic-energy-project personnel, it must be borne in mind that the FBI supervisors in their review of all internal-security and espionage cases take cognizance of the names of all individuals who are mentioned in such reports and check these names against their

central indexes. When any of the individuals named in such reports are found to have a present or past connection with the atomic-energy project, the Commission is appropriately advised and in those cases where the reported information has substantially derogatory implications, the FBI reopens its investigations of the individuals concerned. The FBI also provides the AEC with reports of derogatory information on individuals employed by contractors of the AEC although the employee is not assigned to AEC work and on other individuals employed in close proximity to AEC activities.

Discussions have been held with officials of the Federal Bureau of Investigation with respect to the feasibility of a limited reinvestigation program. The Director of the Federal Bureau of Investigation has recently agreed to conduct supplemental investigations for a limited number of project personnel. The details of implementing this plan are still in the formative stage and due consideration is being given to the morale and public-relations problems involved.

*Page 21, paragraph 4, Document Control*

In the light of operational experience document-control procedures are, and have been, under study with a view toward simplification of procedures and revision thereof, and the issuance of new procedures as the need is developed. As the result of such study a revision of top-secret control procedures has been issued. A procedure for the servicing and control of classified research and development reports and a procedure dealing with the control of reports containing weapon data have also been issued since the issuance of the Security Survey Panel Report. Further procedures relating to the responsibility of security offices and individuals with respect to document control upon termination or transfer action have been promulgated. Procedures concerning the submission of reports for declassification have been published. In addition, an extensive study which has been made of the basic policies for safeguarding and accountability of classified documents has indicated the desirability of extension of the scope of the present procedures.

*Page 22, paragraph 1, Access to Technical Reports*

Within most AEC facilities access to technical reports was, and is, on a need-to-know basis. Normally, individuals are authorized by their responsible Division Director to have access to certain fields of information falling within the scope of their assigned duties and on the basis of such authorization are granted access by librarians to technical reports in particular fields. Such approval by the Division Director assures the librarians that the access is properly granted on a need-to-know basis. It is felt such controls are both necessary and desirable in order to preserve the concept of compartmentalization. Technical Reports are distributed throughout the Commission on the basis of standard distribution lists which specify each category of report and the installations which are to receive copies thereof. In the preparation and semiannual revisions of these lists the installations themselves are invited to cooperate, and they do so. As far as is known, the system has not prevented any authorized individual from securing needed access to technical reports. In addition, a publication entitled "Abstract of Classified Reports" is issued on a semimonthly basis which lists all significant new technical reports. The only technical reports excluded from this Abstract are weapon data and production reports which because of their nature are closely held.

The Chief Librarian, Division of Information Services, feels that the panel may have obtained the impression of the great difficulty experienced by personnel in obtaining technical reports from a staff visit to the Brookhaven National Laboratory where a more exacting distribution system for classified reports is used in view of the large number of unclassified reports and uncleared personnel at that installation. However, it is felt that these extra controls are necessary at Brookhaven in view of the foregoing conditions. Moreover, this is an isolated instance.

On December 15, 1950, standard library procedures for the identification, servicing, and control of all classified research and development reports of the AEC, its contractors, licensees, and consultants were published. This bulletin did much to standardize existing procedures.

It is interesting to note with regard to the over-all access problem that the Chief Librarian, Division of Information Services, has stated that he has had no complaints from scientists or other interested personnel as to the present method of effecting access to technical reports.

*Page 22, paragraph 3, Reduction of Volume of Classified Documents*

Significant progress has been made in the reduction of the volume of classified documents, most particularly in the top-secret category. Major programs have been initiated whereby the volume of top-secret documents has been reduced by downgrading and destruction and also by consolidation of top-secret documents—the latter method consisting of integration of periodic reports into one document so that reporting requirements are based on a single document rather than many individual documents requiring individual record keeping and reporting. For example, as a result of the consolidation program some 1866 individual top-secret documents have been incorporated into 89 documents. A revision of top-secret procedures now in preparation will place the consolidation program in effect at all Commission installations.

Example of the progress of the downgrading and destruction program may be seen in the fact that between October 1950 and March 1951 a total of 1,366 top-secret documents were downgraded and 5,120 top-secret documents were destroyed.

To expedite the reduction in the volume of classified documents, a document control officer was appointed in each Office of Operations and charged with the responsibility of effecting this program. A conference of such representatives was held in August 1950 at Chicago, Ill., at which methods of accomplishing the reduction program were discussed.

Other possible methods of reduction of the volume of classified material are under study at the present time.

*Page 23, paragraphs 1 and 2, Relations Between Divisions of Information and Security*

The panel's impression of conflict between the Division of Information Services and the Division of Security was apparently based on some misunderstanding, since no information of a programatic nature was then or is now released by the Public Information Service without prior review by the Division of Security. Technical information, contained in scientific and engineering papers, was and is cleared by responsible reviewers in accordance with the declassification guides, and is not cleared by the Security Division. Popularizations and feature articles appearing in newspapers and magazines of general circulation, when based on declassified papers so published, have been mistaken for AEC releases by field personnel of the Commission. There is at least one sharp example of this misunderstanding—an article on K–25 and its process, written outside AEC.

Staff differences arising in the course of review of materials proposed for public release are, of course, conflicts in judgments which must be resolved at higher levels. There are very few, however, which are not resolved at staff level, and of those requiring higher-level determination few if any involve questions between the Information Service and the Security Division but between the requirements of the program divisions whose operations are affected by the releases proposed for issuance.

The conditions which were reflected in the panel's comment, however, have been greatly improved by the broader dissemination inside AEC of information as to classification and declassification policy, the definition of unclassified areas of research, the establishment of classification guides, greater familiarity on the part of field-security representatives with the unclassified and declassifiable areas of technical information, and closer working relationships and better communication among Washington and field information and security personnel.

*Page 23, paragraph 3, Export Control as a Security Function*

While this activity clearly has a security objective, the determination as to the value to another country of unclassified equipment used in atomic-energy work is largely technical in nature. The Export Control Branch was, therefore, originally placed in the Production Division and has recently been transferred to the Division of Construction and Supply since, in addition to technical considerations, the supply and allocation of material and equipment must be carefully weighed in the development of export-control policies. In the administration of this program, consultation is required not only with the program divisions and the Director of Intelligence but with other agencies of the Government (p. 8). The Export Control Branch reports to and coordinates with the Division of Security any matters which involve a potential violation of law or evidences of subversive activity. These matters are turned over to the Division of Security for coordination with the Federal Bureau of Investigation.

*Page 23, paragraph 4, SF Accounting as a Security Function*

Inasmuch as SF accountability is so closely related with production control, this activity was made a function of the Division of Production. Precise production control is necessary in the isotope separation processes, both as a measure of efficiency and to prevent the building up of critical masses of fissionable isotopes in the manufacturing system. In the plutonium-production processes, precise-production control is necessary not only to the operation of the reactors themselves but also as a health measure because of the toxicity of plutonium. If source or fissionable material is unaccounted for or there are unexplained losses during production, the matter is coordinated with the FBI through the Division of Security. The investigation of such matters are closely reviewed by both the Division of Production and the Division of Security.

As was pointed out in the third paragraph of this letter, the basic recommendation of the Bugas panel was for a grouping of related divisions under an assistant general manager who would be responsible for the coordination of security responsibilities. Commission consideration of this subject continued through the late spring and early summer of 1950 when they were interrupted by the resignation of the general manager. As I believe Mr. Williams outlined to you, the present thinking of the Commission and of the General Manager's Office is for the establishment of three assistant managerships. The first of these, the Assistant General Manager for Manufacturing, was announced on August 3. An assistant General Manager for Research (including Reactor Development, Biology and Medicine, as well as the present Division of Research) is also contemplated. The position, which most closely conforms to the assistant managership proposed by the Bugas report is, however, that of Assistant General Manager for Administration. This individual would be responsible for much of the coordination envisaged by the Bugas panel and would be an office with the prestige which the panel contemplated. Our present plans are to establish such a new position as soon as a person can be found who meets the rigorous qualifications necessary for the job.

In the meanwhile, Mr. Williams, the Deputy General Manager, has responsibility of effecting the coordination in security matters among the various divisions. In this area he endeavors particularly to devote the time required to assure an effective security program for the atomic-energy project in the broadest sense. Conferences in his office on security topics are of great frequency, not only with the Security Division but also with other divisions who have important security responsibilities.

Mr. Williams or I will be happy to meet with you to discuss this subject further if you so wish.

Sincerely yours,

WALTER WILLIAMS
(For Marion W. Boyer, General Manager).

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## AN INQUIRY ON ESPIONAGE

JULY 3, 1951.

Mr. J. HOWARD MCGRATH,
*United States Attorney General,*
*Justice Building, Washington, D. C.*

DEAR MR. ATTORNEY GENERAL: For the information of the Joint Committee on Atomic Energy, I would be grateful indeed if you could advise me of all cases as to which the Manhattan Engineer District recommended prosecution for espionage or otherwise suggested the possibility of prosecution on an espionage basis, and the dispositions thereof.

Thank you very much indeed for this assistance, which will be most helpful to the committee.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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DEPARTMENT OF JUSTICE,
OFFICE OF THE DEPUTY ATTORNEY GENERAL,
*Washington, July 31, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate, Washington, D. C.*

MY DEAR SENATOR: In reference to your letter of July 3, 1951, to the Attorney General, this is to advise you that a review of the Department's files fails to re-

veal any case in which the Manhattan Engineering District recommended to this Department prosecution for espionage or otherwise suggested the possibility of prosecution on an espionage basis.

Yours sincerely,

PEYTON FORD,
*Deputy Attorney General.*

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## "HEAVY WATER"

Dr. Lawrence R. Hafstad, Director of the AEC Division of Reactor Development, in an official address on July 22, 1949, made the folowing statement regarding the Canadian heavy water reactor at Chalk River: "The reactor of most advanced design and performance is in Canada.'

On December 28, 1951, the following excerpt from an article by Frank Carey, Associated Press science reporter, appeared in the Washington Evening Star:

"Top American atomic officials have publicly stated that 'the reactor of most advanced design and performance is in Canada.'

### "KEY DIFFERENCE NOTED

"Key difference between Canada's 'furnace' and the principal ones so far announced by the United States is this:

"The Canadian device employs 'heavy water' as a material for sustaining a controlled chain reaction in a pile of uranium—thereby making possible the production of atomic energy by the uranium fuel.

"In contrast, the principal known American reactors employ graphite, a form of carbon, for the same purpose.

"Neither 'heavy water' nor graphite produce atomic energy themselves. Essentially, their job is to slow down neutrons, or atomic particles, given off by the splitting of uranium atoms, so that further splitting in other atoms of the fuel will take place. Thus a chain reaction is sustained.

"In a tour this reporter made of Canada's project, and in supplementary interviews with atomic officials at Ottawa, no Canadian intimated that the United States will concentrate on 'heavy water' reactors at the H-bomb plant.

### "EVIDENCE LISTED

"But there is suggestive evidence that Canada's 'heavy water' device may be the model for the new American project:

"1. The American appraisal of Canada's reactor as being the most advanced in design and performance was given after the United States had had at least 5 years' experience with graphite reactors.

"2. When the United States announced last year it would build a plant in South Carolina to make materials which could be used either for the projected H-bomb, the established A-bomb, or for potential atomic power purposes, the Americans said devices for making such materials would be of advanced design."

On July 28, 1951, the following statement appeared in Business Week, a McGraw Hill publication:

"Design of the three Savannah River reactors is still being worked out, but indications are that they will differ radically from those at Hanford. Nowadays most designers favor the heavy-water type of machine. This gives a flexible and convenient piece of equipment. In a huge shielded tank of heavy water, a lattice of natural-uranium slugs can be suspended to manufacture plutonium. The heavy water serves doubly—it replaces carbon as a moderator, slowing the neutrons emitted by splitting atoms; and the same water can be circulated through a heat exchanger to dissipate the hundreds of thousands of kilowatts of energy.

"Mechanically, this design has a double advantage. For one thing, it eliminates the elaborate equipment needed at Hanford to purify, circulate, store, and discharge cooling water.

"A second advantage is that the arrangement of the fuel elements can be changed without rebuilding the whole machine. Thus if you want to make tritium instead of plutonium, you can fuel the reactor with slugs of uranium enriched in fissionable material, then you insert as much metallic lithium as the reactor can take without choking off the chain reaction.

"During the war, when Hanford was designed, Manhattan District people considered using heavy water, but the material was then too scarce, and they used blocks of carbon instead. Now a good supply of heavy water is available from a plant in Canada, and AEC is planning additional plant capacity."

(Reprinted by permission of McGraw Hill Publishing Co.)

On January 14, 1952, the following statement appeared in Time magazine:

"There is a strong presumption that the reactors at the Savannah River plant will use heavy water instead of graphite as a 'moderator.'"

(Reprinted by permission of the publishers of Time magazine.)

ATOMIC ENERGY COMMISSION

Dana Area

TERRE HAUTE, IND.

Information for the press (No. 8).
For release in afternoon newspapers of Thursday, January 17, 1952.
For release at 7 a. m. Thursday, January 17, 1952.

Material to be produced at the new atomic energy facility near Dana, Ind., is of vital importance to the future operating schedules of the Atomic Energy Comission's billion-dollar Savannah River plant in South Carolina, the Commission revealed today.

The Savannah River project is a hydrogen-bomb materials production plant. It also will produce materials that can be used in A-bombs and for peacetime applications. Dana will produce what is known as heavy water.

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## PRESS POLICY AT NEVADA

JANUARY 5, 1952.

Memorandum for the files.
From: William Bergin, joint committee staff.
Subject: Handling of press coverage of the recent Nevada tests.

This morning I conferred at the AEC with Messrs. Salisbury, Trapnell, and Southwick regarding the reasons for the AEC handling of press coverage of the recent Nevada tests and plans for handling the press problem in future tests.

According to Mr. Salisbury, the reasons were made very clear to newspapermen at the test site and they were in complete harmony with the Commission's viewpoint. According to information I was given, the Nevada test site was "an extension of laboratory experiments" and the detonations were "experimental nuclear detonations" of test weapons. As a result the tests could possibly have yielded restricted data which could have been deduced on observation by newsmen.The Frenchman Flat detonations were completely different from those at Bikini in that they were held to determine the "yield" of experimental weapons rather than to determine the "effects" of stockpile weapons.

Prior to the Bikini tests, newsmen were told what data was to be expected as a result of the explosion, and conversely at Nevada, the data to be expected had to be ascertained. It was felt that some information which could be obtained by newsmen merely by observation could possibly be restricted.

At the December 10, 1951, press conference of the AEC, the Chairman of the Commission had the following to say regarding future tests and it could very well be that his statements will answer the questions as for plans regarding future experiments:

"Chairman DEAN. There is no date that I can announce, except to say we will have spring tests.

"QUESTION. Is there any possibility that they will be open to wider examination than the last one?

"Chairman DEAN. By the press, you mean?

"QUESTION. Yes, sir.

"Chairman DEAN. We are not giving up, speaking for myself, on the hope that newspapermen may get in at a shot. The difficulties are many. As a matter of fact, I started out on the assumption several months ago, before the Nevada tests, that it would be a very easy thing to do. The more we got into it, the more I realized the headaches that are involved in doing it. I don't mean simply nuisances, that you have to put up plush grandstands for the press, or anything, because they don't demand that. But I mean the difficulty of

keeping restricted data, notably, yield of weapons, from getting out. There are many difficulties.

"I think generally you could say this: that we would be much more apt—or let me put it this way: It would be much easier to solve the problems of classified information if we could shoot, and had reason to shoot, let us say, some kind of a stockpile weapon at a test, as distinguished from a purely development shot where you are testing some little piece in the gadget, or some entirely new idea where you don't know what the energy release is.

"QUESTION. I had in mind something like Bikini, where the explosion itself was by no means all that was given to us. There we were able to see the scenes, and they were explained to us lucidly. Is there any prospect of that now?

"Chairman DEAN. I would rather not say 'Yes' or 'No' to it at this point. We have it in mind. We have a group that is constantly studying this question of how to handle the enlarging number of people that would be interested in the test, and how we would accommodate them. The toughest shots to accommodate are the developmental shots, which are of interest only to the Los Alamos laboratory.

"QUESTION. That means that is the type of shot you will have this spring?

"Chairman DEAN. No, it doesn't mean that. It means there would be several shots, which might be all developmental, or some developmental. That has not been firmed up."

W. J. B.

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ASSISTANT SECRETARY OF STATE,
*Washington, February 7, 1951.*

Hon. BRIEN MCMAHON,
*United States Senate.*

DEAR SENATOR MCMAHON. In response to your query concerning the handling by our information program of the recent atomic explosions in Nevada, I should like to pass on some additional data which you may find of interest.

As I indicated yesterday when you called, there is an important difference in the treatment of output to the Soviet orbit and that to other areas. Whereas output to the non-Soviet world is strictly limited to official statements on the tests, the Soviet orbit is now hearing from our sources not only the official statements but also certain news stories relating to these explosions and their visual and concussion effects. Our operators are instructed to use the mere moderate press interpretations and to present the stories calmly, unexcitedly, and matter of factly.

As for the question of reactions noted to date from the iron-curtain countries, we find that the Communist propaganda machine has imposed an almost complete silence. Only one report has come to our attention so far—an East Berlin radio report of February 3, which mentioned the explosions briefly as a United States warlike threat employed in connection with our efforts in the United Nations. It may well be that they are afraid to play up this story for fear of running counter to one of their main lines based on our alleged military weakness. In any event, we are following this closely and will be glad to keep you informed of further developments if you wish.

Sincerely yours,

HOWLAND H. SARGEANT,
*Deputy Assistant Secretary for Public Affairs.*

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## RECRUITMENT OF SCIENTIFIC PERSONNEL

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*March 8, 1950.*

MR. CARROLL L. WILSON,
*General Manager, United States Atomic Energy Commission,*
*Washington, D. C.*

DEAR MR. WILSON: We have had several requests from committee members for information regarding the method of recruiting scientific and technical personnel. Such questions as these have been asked:

Do the field managers take care of all hiring?

Is there a central clearing house to which potential scientific and technical employees may go for advice?

May such employees be hired in Washington for work in the field?

Is any effort being made to contact recent graduates from the scientific and technical schools?

Is any effort being made to "ration" scientific talent or to use it in the most fruitful possible way?

Is there machinery designed to assure that able men will be approached regarding atomic energy employment and that their services will be utilized in that fashion most beneficial to the project from an over-all viewpoint?

Is there exchange of information between the various field offices as to the qualifications of the various technical and scientific personnel working at each—so that transfers might be considered with a view toward more efficient utilization of the talents available?

Finally, does the Commission possess a roster of all the scientific and technical people in the United States possessing master degrees and Ph. D. degrees and, if so, does the Commission make use of the roster in its employment and personnel policies?

Comments on such questions as these will be very keenly appreciated.

Sincerely yours,

WILLIAM L. BORDEN, *Executive Director.*

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UNITED STATES ATOMIC ENERGY COMMISSION,
*Washington 25, D C., March 21, 1950.*

Mr. WILLIAM L. BORDEN,
*Executive Director, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. BORDEN: To assist you in answering requests from committee members for information regarding the recruitment of scientific and technical personnel, I am glad to give you the following information.

As you know, most of the research and development program of the Commission is operated under contract with various organizations. The staffing of these installations is one of the responsibilities assigned to the contractors. The managers of the AEC operations offices have responsibility only for hiring people in their offices, but the managers do, of course, advise with contractors in the appointment of laboratory directors and other top-level contractor employees.

In order to provide potential scientific and technical employees with advice on where their services might best be utilized, the Division of Organization and Personnel maintains a service for the recruitment of key personnel and collects information regarding the kinds of scientific talent employed by the various contractor installations. Employees for work in the field are not hired by the Washington office, but applications for employment are referred through the appropriate operations offices to contractors.

Several of the contractors in carrying out their responsibility for the recruitment of scientific and technical personnel keep in close touch with colleges and universities. Examples of programs designed to promote these college and university relationships are cited in the seventh semiannual report of the Commission on page 180 under the heading, "An aid to recruitment."

No effort is made to ration scientific talent, but study is being given to methods of redistributing scientific talent among various installations in accord with current program changes. Shifts of this kind have been made before. For example, when the decision was made some time ago to transfer major responsibility for reactor development from the Oak Ridge National Laboratory to the Argonne National Laboratory, arrangements were made for the transfer of a number of key scientific and technical personnel along with the program.

There is at present no central machinery designed to assure that able men will be approached regarding atomic energy employment and that their services will be utilized in that fashion most beneficial to the project from an over-all viewpoint. Instead it has been the policy of the Commission to assign program responsibilities to contractors and to depend upon them to employ whoever may be needed to carry out their particular assignments.

With reference to your question about a roster of scientific and technical people in the United States, we have detailed information regarding the training, experience, and qualifications of approximately 50,000 of the top scientists in the country. This information was gathered by the Office of Naval Research and was one of the projects jointly supported by the Commission. People at the

master's degree level are for the most part not included in this list, but the coverage of people with doctor's degrees, or with equivalent experience, is very high. This roster is used frequently to learn details regarding technical qualifications of persons under consideration for employment on the Commission's staff, and to a lesser extent on contractor staffs.

If you have further questions about the Commission's program for the assembly of scientific talent, I shall be glad to answer them. Also, Dr. Philip N. Powers, adviser on scientific personnel in the Division of Organization and Personnel, has given special study to this problem and will be happy to discuss it further with you.

Sincerely yours,

CARROLL L. WILSON,
*General Manager.*

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## NEW MLC CHARTER

MILITARY LIAISON COMMITTEE TO THE ATOMIC ENERGY COMMISSION,
*Washington, D. C., January 18, 1951.*

Hon. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*United States Senate.*

DEAR SENATOR MCMAHON: I am attaching the new charter of the Military Liaison Committee which we talked about with Mr. Elmendorf and Mr. Todd of the Management Committee of the Office of the Secretary of Defense, and Mr. Borden of your staff in your office on December 14, 1950. This completes the subject matter of the report on activities of the Military Liaison Committee which was sent to you on December 16, 1950.

Mr. Elmendorf, Mr. Todd, and I will be glad to come over to your office and discuss the subject matter of these documents at your convenience.

Sincerely yours,

ROBERT LEBARON, *Chairman.*

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OFFICE OF THE SECRETARY OF DEFENSE,
*Washington, January 17, 1951.*

Memorandum for: Secretaries of the military departments, the Joint Chiefs of Staff, Assistant Secretaries of Defense, Chairmen, Boards, Councils, and Committees, OSD, Directors of Offices, OSD.
Subject: Chairman, Military Liaison Committee.

The attached memorandum directive for the Chairman, Military Liaison Committee is forwarded for your information.

K. R. KREPS,
*Colonel, USAF, Acting Executive Secretary.*

(Enclosure.)

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THE SECRETARY OF DEFENSE,
*Washington, January 17, 1951.*

Memorandum for the Chairman, Military Liaison Committee
Subject: Collateral duties within the Office of the Secretary of Defense, Assignment of.

1. In adition to your statutory duties which derive from the Atomic Energy Act of 1946, as amended, and other duties assigned to you as chairman in the charter of the Military Liaison Committee, you are hereby designated "Deputy to the Secretary of Defense for Atomic Energy Matters" when specifically representing me, or the Department of Defense, with various national and international agencies and committees external to the Department of Defense.

2. As Chairman, Military Liaison Committee, you are also assigned the task of "Coordinator and Staff Adviser for Atomic Energy Matters" in the Office of the Secretary of Defense. In the execution of this task I desire that you bring to my attention for review and resolution all pertinent views and recommendations of the Joint Chiefs of Staff, the Research and Development Board, the Munitions Board, and any other interested staff agencies regarding atomic energy matters under consideration in the Office of the Secretary of Defense.

G. MARSHALL.

THE SECRETARY OF DEFENSE,
*Washington, January 17, 1951.*

**Memorandum for:** Secretaries of the Military Departments,
The Joint Chiefs of Staff,
Assistant Secretaries of Defense,
Chairmen, Boards, Councils, and Committees, OSD,
Directors of Offices, OSD.

**Subject:** Military Liaison Committee.

Attached is a revised directive for the Military Liaison Commitee. This directive is effective as of this date and supersedes "Directive, Military Liaison Committee" dated November 26, 1949.

G. MARSHALL.

(Enclosure.)

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JANUARY 17, 1951.

DIRECTIVE MILITARY LIAISON COMMITTEE

I. INTRODUCTION

Pursuant to the authority vested in the Secretary of Defense by the Atomic Energy Act of 1946, as amended, and the National Security Act of 1947, as amended, and in order more fully to define the authority and duties of the Military Liaison Committee (hereinafter called the "Committee") and to define the relationships of the Committee with the Military Departments and other agencies of the Department of Defense, it is hereby directed as follows, effective as of the date of signature:

II. MEMBERSHIP OF THE COMMITTEE

The Committee shall be composed of a Chairman, appointed by the President with the advice and consent of the Senate, and two military members from each of the three Departments, to be designated in each case by the Secretaries of their respective Department. In the absence of the duly appointed Chairman, the senior committee member will preside as Chairman.

III. AUTHORITY

A. *Authority of the Committee.*—Within its jurisdiction as defined in the Atomic Energy Act of 1946, as amended, and as further defined in this directive, or as may be further directed by the Secretary of Defense, the Committee shall be the principal agency of the Secretary of Defense responsible for performing the duties set forth in Section IV below. As such, the Committee is authorized, on matters within its jurisdiction, to issue directives to implement the policies and decisions of the Committee, and to supervise their execution. It shall not engage in administrative duties or in operations for which an agency exists.

B. *Authority of the Chairman.*—The Chairman of the Committee shall, subject to the provisions of Paragraph C of this Section, have the power of decisions in any matter falling within the jurisdiction of the Committee on which the other members of the Committee are not unanimous.

The Chairman shall have authority to take executive action in consonance with approved plans, programs, and policies of the Committee, and on those matters which do not require, or because of the exigencies of time, do not permit formal Committee consideration. The Chairman of the Committee may, without being relieved of his responsibility therefore, perform any of his duties with or through the aid of such members or officials of the Military Liaison Committee as the Chairman may designate.

The Chairman, subject to the policies prescribed by the Secretary of Defense, is authorized to establish such continuing or temporary committees, councils, and agencies as may be necessary to conduct studies, assemble information, make recommendations, and otherwise to assist in carrying out the responsibilities of the Committee.

C. *Dissents from Decisions of the Committee.*—With respect to any decision of the Committee, a dissenting Committee member may initiate, for submission by the Secretary of the department represented by the member in question, an appeal therefrom to the Secretary of Defense. Prior notification of any such

action shall be given to the Chairman and other members of the Committee. In the event the Chairman is not in agreement with a unanimous decision of the other members of the Committee, after prior notification to such other members of the Committee, he may present his recommendations to the Secretary of Defense.

IV. DUTIES

A. *Duties of the Committee.*—Subject to the authority and direction of the Secretary of Defense, the Committee, in addition to its statuory functions set forth in the Atomic Energy Act of 1946, as amended, shall perform the duties listed below as the over-all coordinating agency of the Department of Defense for action regarding military applications of atomic energy required for the support of strategic and logistic plans of the Joint Chiefs of Staff and other Department of Defense programs. The Committee will also perform such other duties as may be directed by the Secretary of Defense.

After appropriate consultation with organizations of the Department of Defense and acting as representative of the Department of Defense:

1. Advise and consult with the Atomic Energy Commission on all atomic-energy matters which the Committee deems to relate to military applications and make specific recommendations thereto as it may deem appropriate.

2. Serve as the coordination medium for the Secretary of Defense between the Department of Defense and the Atomic Energy Commission on both statutory and other military matters pertaining to the military applications of atomic energy.

3. Keep the Atomic Energy Commission fully informed of all atomic-energy activities of the Department of Defense.

Report to the Secretary of Defense, for such action as he deems appropriate, any proposed action or failure to act by the Atomic Energy Commission which the Committee deems to be adverse to the interests or responsibilities of the Department of Defense.

Furnish and arrange for the continuous supply to the organizations of the Department of Defense, particularly the Joint Chiefs of Staff and the Research and Development Board, timely information as to new developments in atomic-energy matters which are pertinent to the conduct of their functions.

Continuously evaluate all aspects of the national atomic-energy program and, as appropriate, make recommendations and submit a report (including the views of the Joint Chiefs of Staff) thereon to the Secretary of Defense concerning all activities of the Government concerning the military applications of atomic energy not less frequently than once each year.

The Committee, if required and appropriate, is available, with the Chairman participating at his discretion, to act as a staff advisory agency to the Joint Chiefs of Staff to assist them in arriving at decisions in atomic-energy matters of major import. However, such advisory duties of the Committee should not be permitted to unduly impinge on its statutory liaison duties with the Atomic Energy Commission.

B. *Duties of the Chairman.*—The Chairman of the Committee shall be the principal advisor and assistant to the Secretary of Defense on the political, economic, and scientific aspects of atomic-energy matters with which the Secretary of Defense may be concerned.

The Chairman of the Committee shall, with the advice and assistance of the Staff, prepare policies, plans, and programs for presentation to the Committee.

The Chairman shall represent or arrange for representation of the Department of Defense before and with other Governmental Departments and agencies on all matters for which the Committee has responsibility under the provisions of this directive.

V. ADMINISTRATION

The Secretary of Defense will provide the Chairman with such personnel, facilities, and other administrative services as he from time to time determines are required by the Chairman for the performance of the Committee's functions. Military personnel in approximately equal numbers shall be provided by each of the three Military Departments, in accordance with the needs of the Chairman as approved by the Secretary of Defense. Such military personnel will compose the Secretariat and Staff of the Committee and will be headed by a specifically designated Executive Secretary. The Executive Secretary and the members of the Secretariat and Staff shall be acceptable to, and, during their tours of duty with the Committee, responsible to, the Chairman of the Committee rather

than to their own department with respect to performance of duty and efficiency ratings.

The Chairman, subject to the approval of the Secretary of Defense, shall provide for the internal organization and staffing of the Committee and shall establish its rules of procedure. The Staff of the Committee shall be responsible to and shall function under the direction, supervision, and control of the Chairman through the Executive Secretary.

Committees, councils, and agencies operating under the jurisdiction of the Military Liaison Committee will function under the authority, direction, and control of the Chairman of the Committee.

The Members of the Committee shall be available to the Chairman to serve as sponsors in areas which the Chairman may designate. Such so-called sponsor activities are delegations of the authority of the Chairman to the Committee members as individuals and do not involve in any degree the military department which the Member serves.

The Committee members, at their discretion, may submit agenda items for consideration by the Committee, but the Chairman shall decide the priority of matters to be discussed at the regular meetings of the Committee.

The Committee shall meet at the call of its Chairman or at such times as it may fix, and the presence of four military members, including at least one representative of each department, shall constitute a quorum.

VI. RELATIONSHIPS

The Chairman, the Committee, and the staff of the Committee are authorized and expected to communicate directly and expeditiously with other agencies of the Secretary of Defense and the Military Departments and appropriate subdivisions thereof, concerning any matter within the Committee's jurisdiction and in which there exists a mutual interest or responsibility.

The Committee shall coordinate its efforts with all agencies within and outside the Department of Defense which have a mutual interest or responsibility with respect to any of its programs and will determine what formal concurrences, if any, are required.

In the execution of the provisions of this Directive by the Military Liaison Committee, the Joint Chiefs of Staff, the Research and Development Board, the Munitions Board, and other duly constituted agencies and activities of the Department of Defense shall not be delimited from the initiation of any appropriate action necessary to carry out their assigned functions.

G. MARSHALL.

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THE SECRETARY OF DEFENSE,
*Washington, March 16, 1951.*

Memorandum for the Chairman, Committee on Atomic Energy Research and Development Board.

Subject: Appointment of Acting Chairman, Military Liaison Committee to the Atomic Energy Commission.

1. In view of the possibility of a hostile attack upon the District of Columbia of such proportions as to cause extensive losses and casualites to the personnel of the Department of Defense, it is deemed advisable to appoint successors to the principal officers of the Department to provide for continuity of action in the event the incumbents should be incapacitated through such a disaster.

2. If the Chairman of the Military Liaison Committee to the Atomic Energy Commission should become a casualty under such circumstances as described above, I desire that you, as Chairman of the Committee on Atomic Energy of the Research and Development Board, assume the additional duty of Acting Chairman, Military Liaison Committee, until such time as another Chairman may be duly appointed. In this capacity you will exercise the authority and perform the duties prescribed by the Directive of the Military Liaison Committee dated January 17, 1951.

3. In addition to the duties specified in the Military Liaison Committee Directive, the Chairman, Military Liaison Committee, has been assigned certain collateral duties as specified in my memorandum to him dated January 17, 1951. I desire that effective at such time as you may become Acting Chairman, Military Liaison Committee, you also perform these additional duties.

G. MARSHALL.

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"JUST BIG BLOCKBUSTERS?"

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*March 15, 1949.*

The honorable the SECRETARY OF THE ARMY.

MY DEAR MR. SECRETARY: I have noticed a number of newspaper articles which charge that the Armed Forces are seeking to "play down" the atomic bomb. A typical newspaper allegation is that the services are deliberately deemphasizing the power of atomic weapons so as to strengthen the case for "conventional" armaments. These various articles implicity or explicity state that the military believe Congress is more likely to appropriate large sums for "balanced forces" and "orthodox" armies, navies, and air forces if the efficacy of atomic weapons is depreciated.

I simply want to inquire whether or not there is any truth in the newspaper articles to which I refer. A good example is the item which appeared in the Berkshire Eagle on December 2, 1948, quoting a Lieutenant Gomes of the Reserve. Have spokesmen for your Department been directed or otherwise encouraged to stress that atomic weapons are "just big blockbusters"? Or, to state the question another way, does your Department regard atomic weapons as unique in destructive power?

I would be grateful indeed for a detailed reply to this letter. I can then decide whether this should be brought before the Joint Committee on Atomic Energy.

Sincerely yours,

BRIEN MCMAHON,
*Chairman.*

(A similar letter was sent to the Secretary of the Navy and the Secretary of the Air Force.)

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DEPARTMENT OF THE ARMY,
*Washington, D. C., March 30, 1949.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: Thank you for your letter of the 15th inquiring as to the views of the National Military Establishment on the relative significance of the atomic bomb, and as to our policy with respect to presentation of its potentialities. I regret very much the delay in replying to your letter, which has been occasioned by difficulty in securing the article quoting a Lieutenant Gomes, of the Reserve, United States Air Force.

There is no truth whatsoever to allegations that Department of the Army representatives are deemphasizing the power of atomic weapons in order to strengthen the case for conventional armaments. Speculation in the public press has ranged from vast and hysterical overemphasis to underemphasis of the impact of atomic weapons on the world. The Department of the Army places very great importance in arriving at the most realistic and correct evaluation for the good of the Nation as a whole.

Personnel of the Army have been neither directed nor encouraged to stress that atomic weapons are "just big blockbusters." Every effort is being made to disseminate within the Army the facts concerning the effects that an explosion of an atomic bomb will produce.

This Department regards atomic weapons as unique in destructive power. We are making every effort to evaluate the proper role of atomic weapons in our defensive and offensive capabilities. In addition, it is expected that the Weapons Systems Evaluation Group will assist in the evaluation of the part that atomic weapons will play in future operations. The Department of the Army expects to devote careful attention to the findings of this study, as well as to studies being conducted by other agencies.

I hope this answers your questions adequately. If you wish to discuss this matter in greater detail, I can arrange to do so, or I can have Maj. Gen. K. D. Nichols discuss the questions with you.

Sincerely yours,

KENNETH C. ROYALL,
*Secretary of the Army.*

THE SECRETARY OF THE NAVY,
*Washington, April 6, 1949.*

The Honorable BRIEN MCMAHON,
*The United States Senate, Washington, D. C.*

DEAR SENATOR MCMAHON: Your letter of March 15, 1949, raised the question whether the Navy Department has directed or otherwise encouraged its spokesmen to stress that atomic weapons are "just big blockbusters." You further questioned as to whether there was any truth in the substance of various newspaper articles that attempts by the military to play down the bomb were directed toward obtaining congressional support for more conventional weapons and forces. I can answer categorically "no" to both these questions and state positively that the Navy Department considers the atomic bomb to be entirely unique in destructive power. If any principle has guided the thought of Navy spokesmen, I am sure that it has been to insure that the enormous power of the bomb is received with healthy respect and not with hysterical fear.

Technical guidance and information in regard to atomic energy have been given the Navy in the official publication All Hands, July 1946. This publication, a copy of whch I am enclosing, is a summation of the information released by the Smyth report and nonclassified works on nuclear physics.

No instructions of a policy nature on the subject of atomic energy have been issued other than to caution senior naval officers against public discussion of the issues involved in the United Nations Atomic Energy Commission unless they were thoroughly cognizant of and complied with Government policy on these matters. It has been entirely understood in the Navy that atomic energy subjects are not only complicated, but also sensitive nationally and internationally. Consequently, it has not been expected that naval officers, in general, would go beyond a casual reference to atomic weapons and their impact on the Navy. Certain officers and officials of the Navy, who are thoroughly informed on these matters, have discussed them in more detail with a view toward giving the public a factual picture of these new weapons and the Navy's relation thereto. I am enclosing for your information copies of several recent speeches which may be considered representative of the best Navy thought on the subject.

I note that the article in the Berkshire Eagle to which you refer in your letter was a report of the remarks made by a Lieutenant Gomes. I have been informed that the individual named is actually Capt. Louis A. Gomes, an inactive member of the Air Force Reserve. As reported in the Berkshire Eagle, it would appear that Captain Gomes was giving his personal reaction to a series of essentially factual lectures given at Harvard by a team from the staff of the Industrial War College for prominent civilian industrialists in the Boston area.

Sincerely yours,

JOHN L. SULLIVAN.

(Enclosures.)

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DEPARTMENT OF THE AIR FORCE,
OFFICE OF THE SECRETARY,
*Washington, March 25, 1949.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR SENATOR MCMAHON: Acknowledging your note of March 15, the Air Force have not been told by anybody to "play up" the atomic bomb or to play it down.

Because this is a matter of over-all national military policy, I am taking the liberty of sending a copy of your letter, plus copy of this reply to the Secretary of Defense.

Sincerely,

W. STUART SYMINGTON.

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DEPARTMENT OF THE AIR FORCE,
OFFICE OF THE SECRETARY,
*Washington, April 9, 1949.*

HON. BRIEN MCMAHON,
*Chairman, Joint Committee on Atomic Energy,*
*Congress of the United States.*

DEAR MR. CHAIRMAN: We refer to your letter of March 15, 1949.

The Department of the Air Force does regard atomic weapons as unique in destructive power. There is, therefore, no truth from an Air Force point of view

in the newspaper articles to which you refer. The Air Force has not directed or otherwise encouraged anyone to state or imply that atomic weapons are "just big blockbusters."

Ranking representatives of the Air Force have publicly stated the Air Force's understanding of the need for adequate aircraft with which to deliver atomic attacks on the premise that the atomic bomb is a most vital force in maintaining the peace as well as winning any war which might occur.

Sincerely,

W. STUART SYMINGTON.

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## AN INTERNATIONAL CONTROL PROBLEM

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 4, 1952.*

The honorable the SECRETARY OF STATE.

DEAR MR. SECRETARY: As you know, the Joint Committee on Atomic Energy is reviewing the new atomic energy plant expansion program. Among other reasons why the committee has been interested in expansion of our atomic production capacity is the promise that the end product—fissionable material—will have important commercial and peacetime values in the event the world situation so improves as to permit large-scale diversions from military uses.

A question has been raised within the joint committee as to whether fissionable material manufactured by the United States might be made unavailable for constructive purposes by the terms of an international control agreement taking effect at some future date. The purpose of this letter is simply to request your assurance in this matter in relation to international control. As I understand it, we have never proposed and do not now propose to the United Nations that United States fissionable material in being be destroyed or rendered unuseful for industrial, commercial, or similar nondestructive purposes. I should like, however, to ask your specific comment on whether the State Department considers that there is any likelihood of our Nation's proposing or concurring in any plan of international control which would have this effect upon the constructive use of United States fissionable material that had entered into existence beforehand.

Many thanks indeed for your assistance.

Sincerely yours,

BRIEN MCMAHON, *Chairman.*

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DEPARTMENT OF STATE,
*Washington, February 15, 1952.*

Hon. BRIEN MCMAHON,
*United States Senate.*

MY DEAR SENATOR MCMAHON: Your letter to the Secretary of State dated February 4, 1952, in which you asked for comment on whether the Department of State considers that there is any likelihood that the United States would propose, or concur in, any plan of international control of atomic energy which would provide that fissionable material produced in the United States would either be destroyed or rendered useless for nonmilitary uses, has been referred to me for reply. In the view of the Department of State there is no likelihood that the United States would propose or concur in any such plan.

As you know, the United States supports fully the United Nations plan for the control of atomic energy and the prohibition of atomic weapons and will continue to do so unless and until a better and no less effective system can be devised. This plan, in addition to giving to the International Control Agency the powers necessary to insure that no nation will be in a position to make atomic weapons, also gives to this agency the affirmative responsibility for promoting peaceful uses of atomic energy. As for the stocks of nuclear fuel that would be accumulated prior to the establishment of international control, the plan provides for the "disposal of any existing stocks of atomic weapons and for the proper use of nuclear fuel adaptable for use in weapons."

There has been considerable discussion in the United Nations on the above points. As a result there was unanimous agreement, including that of the Soviet Union, that nuclear fuel produced prior to, or subsequent to, the establishment of international control would be conserved and used for peaceful purposes.

Sincerely yours,

JOHN D. HICKERSON, *Assistant Secretary.*

## EXPORT CONTROL

JANUARY 23, 1952.

Memorandum for the files.
From: William J. Bergin, joint committee staff.
Subject: Export control of atomic-energy materials.

It is difficult to examine the matter of international control of exports and the transshipment of atomic-energy materials without becoming involved in matters relating to domestic control of atomic-energy materials. This is so because the agencies concerned with international control are also concerned with domestic control. Decisions as to which strategic materials of importance to national security should be controlled for export by the United States are the primary basis for United States decisions on international matters.

The McMahon Act does not define "atomic-energy materials." The AEC, likewise, has not attempted to delimit atomic energy materials, but instead has set down in lists those items which are in fact such materials. Because of a lack of definition and because of its position of authority in atomic-energy matters, the AEC must necessarily advise other Government agencies when its specialty is involved. It advises Commerce on United States export control policies and programs. It acts as technical adviser to State and the Director of Mutual Security on international control matters. State, in turn, advises AEC on international implications arising from export controls. The Director of Mutual Security is in turn advised by AEC and by Commerce, and keeps AEC posted on the international control problem.

### ATOMIC ENERGY COMMISSION

The control of exports from the United States of "source material" and "facilities for the production of fissionable material" as defined and described in the McMahon Act is made a direct responsibility of the Atomic Energy Commission under authority of said act. Regulations promulgated by the AEC to comply with the McMahon Act are contained in 11 CRF, parts 40 and 50, as amended. All applications for licenses to export commodities subject to the act must be made directly to the AEC. The afore-mentioned Code of Federal Regulations lists and defines each item over which the AEC exercises direct export control.

There are a number of other items which are neither "source materials" nor "facilities for the production of fissionable material," but which the AEC nevertheless desires to see controlled. Such items sometimes have uses in fields other than atomic energy, but the value to, and applications in, the atomic-energy program are sufficiently important in the judgment of AEC, to make their control justifiable. Export of most such items is controlled by the Department of Commerce, since the law does not here rest direct responsibility in AEC. The activities of the Department of Commerce regarding atomic-energy materials are described below.

In the case of some commodities, the AEC controls their export by direct liaison with the manufacturer. This is done so that the interest of the AEC in such items will not be generally revealed. Prior to issuing licenses permitting the exportation of helium gas the Munitions Division of the Department of State usually consults the AEC.

The Export Control Branch of the Division of Construction and Supply represents the AEC in matters concerning domestic and international control of exports of atomic-energy materials. This representation includes acting in advisory capacities to the Director of Mutual Security, the State Department, and the Department of Commerce.

Members of the Commission's Export Control Branch sit as members of advisory committees established by Commerce and the Director of Mutual Security.

Insofar as domestic and international export matters involving atomic-energy material are concerned, the Commission's advice has been and is invariably sought by interested agencies. It is noteworthy, too, that the opinions and decisions of the AEC on technical and substantive questions have been accepted without question. The AEC, according to State, Commerce, and ODMS officials, has always carefully indicated its lines of interest and, where that interest is dominant, AEC recommendations are controlling.

Interagency working relations with the AEC are said to have been good, and the various agencies speak highly of the Commission in this regard.

DEPARTMENT OF COMMERCE

The Department of Commerce authority for export control is the Export Control Act of 1949, as amended. The Department, in order to "provide means of assuring the coordination of policies and programs with respect to the administration of export controls in conformity with the objectives set forth in the Export Control Act of 1949," on October 5, 1950, established in the office of the Secretary an Advisory Committee on Export Policy.

The following agencies are members of the Advisory Committee on Export Policy:

Atomic Energy Commission
Department of State
Department of Defense
Department of Agriculture
Department of the Interior
Department of the Treasury
Economic Stabilization Agency
Defense Production Administration
Office of the Director of Mutual Security (ODMS)
Mutual Security Agency
Office of International Trade (Department of Commerce)
National Production Authority (Department of Commerce)

The principal security functions of the Advisory Committee on Export Policy are to review and make recommendations as to which commodities are classified for strategic export purposes, and to review and recommend security export policies and programs. The committee has a number of other functions but these are its two primary duties. In matters pertaining to atomic energy materials not specifically covered by the McMahon Act, the important requirements of the Atomic Energy Commission, as mentioned above, are generally controlling.

The Advisory Committee on Export Policy is a top-level policy committee. The day-to-day policy problems regarding domestic exports are handled by an Operating Committee and "R" Procedure Subcommittee. (The "R" refers to all destinations of exports except those in the Western Hemisphere.)

The Atomic Energy Commission is represented on the Advisory Committee for Export Policy by Mr. Fred Warren and Mr. Lyall Johnson of the AEC Export Control Branch. Its representatives on the Operating Committee are Mr. Lyall Johnson and Mr. Charles Edwards. AEC representatives on the "R" Procedure Subcommittee are Dr. Frederic Lee and Mr. Charles Edwards.

The export from the United States of atomic-energy items not defined by the McMahon Act as being subject to direct control of the AEC, are controlled by the Department of Commerce through the Office of International Trade. Such items, as mentioned above, are those which are regarded as sufficiently important to atomic-energy programs as to justify control. These items have been placed by the Department of Commerce on its positive list of commodities.

This list includes all commodities which require a validated export license from Commerce before shipment from the United States whether to country group "R" and "O" destinations or to country group 'R" destinations only. ("RO" designation indicates that a commodity requires an export license for shipment to any destination except Canada. Commodities under control to "R" destinations require a license to all destinations except those in the Western Hemisphere.) Although general exports to Canada from the United States can be made without a special license, atomic-energy exports which are directly controlled by AEC must be licensed. The list of atomic-energy items on the positive list was furnished the Department of Commerce by the Atomic Energy Commission.

In practice, when an application is made to the Department of Commerce for export of an item on the positive list, the application is referred to the AEC Export Control Branch for its recommendation. In no instance has Commerce licensing action been contrary to the AEC recommendation and it has never been necessary for the Commission to provide detailed justification for its recommendation.

In some cases, the AEC recommendation and the final licensing action may result in the export of a lesser quantity than requested in the export application; and in exceptional instances warrant on-the-spot investigation of the actual utilization.

STATE DEPARTMENT

Instances may arise when it is necessary to consider other than security factors before an export license is issued. In such instances the AEC requests

the Department of State for its views. The AEC may also request Department of State to check on the bona fides of the consignee and the claimed utilization of that article in the country to which it is being exported.

In the matter of control by foreign countries, the State Department acts as a channel of communication with its embassies and consulates regarding atomic energy materials. The State Department utilizes the technical advice of the AEC in arriving at its decisions when asked for its views by a foreign government concerning orders for atomic-energy material placed by its nationals.

In 1948 the Department of State reached agreement through diplomatic channels with certain Western European countries concerning the embargo of atomic-energy items which were contained in the lists furnished the Department by the AEC. Later these AEC lists were circulated to all of our missions abroad to be brought to the attention of appropriate foreign officials on a "need-to-know" basis. That is, only such items on the lists as were important to a country were identified to that country.

Since 1949 the United States, Canada, and the Western European countries have cooperated closely in a common international program of security export controls affecting their trade with the Soviet bloc. These countries maintain a regular contact with all countries through an informal committee on security-export controls. They embargo completely all shipments to the Soviet bloc of atomic-energy materials.

### OFFICE OF THE DIRECTOR OF MUTUAL SECURITY

The Mutual Defense Assistance Control Act of 1951 (generally referred to as the Battle Act; Public Law 213, 82d Cong.; 65 Stat. 644–45; approved October 26, 1951) "declares it to be the policy of the United States to apply an embargo on the shipments of * * * atomic-energy materials * * * to any nation or nations threatening the security of the United States, including the U. S. S. R. and all countries under its domination. * * *." The act further declares it "to be the policy of the United States that no military, economic, or financial assistance shall be supplied to any nation unless it applies an embargo" on the shipments of the same items.

The Administrator of the mutual-security program is required by the act to determine, "after full and complete consideration of the views" of the appropriate agencies which items, including atomic-energy materials, are to be embargoed by other countries.

In order to carry out the provisions of the MDAC the Administrator established an Advisory Committe on Mutual Trade Security. This is a top-level group of which the AEC is a member. Directly subordinate to the above Committee is a technical committee on which the AEC is also represented. The AEC's function on both committees is to advise the Director of Mutual Security on policies and programs involving atomic-energy materials.

On November 25, 1951, the Administrator of the MDAC made the initial determinations of the items which are to be embargoed under the terms of the Battle Act. The items listed as atomic energy materials were determined from lists submitted by the AEC. The Commission's determinations in this respect were (and will continue to be) accepted and controlling in toto.

The lists established under the Battle Act are divided into two categories. Category A specifies 21 items which are, for the purposes of the act, "arms, ammunition, and implements of war and atomic energy materials to be embargoed." Category A list is unclassified and is appended hereto.

Category B list, classified "Secret," contains about 264 items. Included on this list are some 21 items, which though not exclusively atomic-energy items, are considered to be sufficiently important in the field of atomic energy to make an embargo justifiable.

Category B list is classified "Secret" because it is felt that knowledge of the exact and technical nature of the items in the hands of the Soviet bloc would present a security problem of great magnitude.

The Battle Act provides for mandatory termination of aid to any country receiving United States assistance if such country knowingly permits the shipment of any category A item to any nation threatening the security of the United States including the Soviet bloc. The statute also provides that assistance shall be terminated to any country knowingly exporting any category B item unless the discontinuance of aid would be detrimental to United States security.

Several countries, although not receiving United States assistance, are now voluntarily cooperating in enforcing an embargo of category A and B materials to the Soviet bloc. Several of these countries maintain a neutral attitude but

they recognize the road to peace lies in not furnishing war materials to potential or actual aggressors.

The policing of transshipments and export shipments in the cooperating countries is largely done by those countries themselves. Procedures for reporting shipments and for the purpose of promoting adequate controls are now being carried forward as part of the general program under the Mutual Defense Assistance Control Act.

According to ODMS, new and additional controls have been as effective as can be expected considering the infancy of some elements of that program. Aid-recipient countries in most instances are informing the United States of all information concerning controls over exports.

THE FEDERAL REPUBLIC OF GERMANY

In March 1950 the Allied High Commission for Germany caused the enactment of law No. 22, which has as its purpose the "control of materials, facilities, and equipment relating to atomic energy." Law No. 22 has been amended twice—by law No. 53 of May 1951 and law No. 68 which became effective January 13, 1952.

In 1948, the AEC approached the Defense Department regarding the question of controlling the export of atomic-energy materials from Germany. The Commission offered technical advice and the Allied Military Government issued regulations for atomic-energy control. When the occupation was transferred to the Allied High Commission for Germany, law No. 22 was enacted to take the place of the military government's regulations.

Law No. 22 was developed from a list of materials furnished by the AEC. After consultation among the three occupying powers, law No. 22 was later amended by laws 53 and 68 with the result that very comprehensive controls were established on atomic-energy items: That is, their export, import, production and internal transfer.

(NOTE.—A classified file of specific and general information relating to this matter is in the offices of the Joint Committee on Atomic Energy.)

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## CIVIL DEFENSE TODAY

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
*February 7, 1952.*

Mr. MILLARD CALDWELL,
*Federal Civil Defense Administration,*
*Washington 25, D. C.*

DEAR MR. CALDWELL: President Truman, in his state of the Union message expressed a concern which I personally have felt very keenly because of my intimate official association with atomic energency development. As you know, as chairman of the Joint Atomic Energy Committee, it has been my duty to keep in close touch with our own work in this field as well as with whatever information we have been able to cull reflecting on the atomic progress of other countries, including any potential enemy.

For this reason I was particularly concerned to note that the President reported:

"During 1951, we did not make adequate progress in building up civil defense against atomic attack. This is a major weakness in our plans for peace, since inadequate civilian defense is an open invitation to surprise attack. Failure to provide adequate civilian defense has the same effect as adding to the enemy's supply of atom bombs."

The stark truth of the President's statement has raised some questions in my mind which I feel I should transmit to you. I realize, of course, the limitations within which you must function. However, within those limitations and within the appropriations already made for Federal civil defense I am most concerned that we get the greatest possible amount of preparedness against possible attack and get it quickly.

These questions come to mind:

Has FCDA fully utilized appropriated funds for the stockpiling of medical supplies which would be indispensable in the event of attack?

What is the situation as to the stockpiling of drugs and other supplies which would be needed in the event of attack?

Is FCDA endeavoring to facilitate procurement of necessary drug stockpiles by State civil defense agencies?

Needless to say I feel that the answers to these questions are of the greatest importance to all Americans, and of particular concern to us as officials responsible for the welfare of the citizenry.

Sincerely yours,

BRIEN MCMAHON,
*United States Senator.*

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FEDERAL CIVIL DEFENSE ADMINISTRATION,
OFFICE OF THE ADMINISTRATOR,
*Washington 25, D. C., February 19, 1952.*

Hon. BRIEN MCMAHON,
*United States Senate, Washington, D. C.*

DEAR SENATOR MCMAHON: Your letter of February 7, 1952, expressing deep concern over the President's report of inadequate civil defense, is most reassuring to me. I am sure you realize that the truth of the President's statement, which raised such pointed and serious questions in your mind, has been ever before me during the past months. I am sorry to say that none of us will be able to feel entirely easy on this matter at an early date. However, inadequate as our readiness may be, I believe that you will derive some comfort from the answers I shall furnish on the questions which have occurred to you and were posed in your letter.

A total of $70,000,000 has been appropriated by the Congress to date for civil defense medical supplies and equipment. Of this total, the sum of $20,000,000 was made available in the third supplemental appropriation of 1951, approved on June 2, 1951, to match States for State civil defense medical supplies and equipment; and the sum of $50,000,000 was made available by the supplemental appropriation act of 1952, approved on November 1, 1951, for purchase of Federal reserve stocks to be stored in and always ready for delivery from Federal warehouses located near critical target areas. Both of these appropriations are available for obligation only until the end of fiscal year 1952.

Of the $20,000,000 in matching funds appropriated in June 1951 for medical supplies and equipment, Federal contributions of $8,248,936 have been made to States that have submitted requests supported by the necessary State matching funds. In addition, the Federal share of the estimated cost of requests now being processed or being held pending the receipt of further informotion from the States is $862,324.

It is possible that up to $6 million of additional Federal funds may be requested by the States for this purpose by February 29, 1952, by which date such requests must be received if we are to be able to meet procurement schedules. A list showing the status of this program, by State, is attached. The entire balance of this appropriation not matched by the States will be used before June 30, 1952, for purchase of Federal reserves of medical supplies and equipment as authorized in our 1952 appropriation.

You will recognize that one of the major difficulties encountered in implementing this matching program has been the fact that the States could not anticipate the Federal funds which would be available for various civil defense programs. Many States have had no regular legislative sessions since June 2, 1951, the date when Federal matching funds first became available. You may be sure that, in spite of the difficulties presented, this Administration has made a maximum effort to obtain State participation in this program.

Of the $50,000,000 made available on November 1, 1951, for Federal reserve stores of medical supplies and equipment, 45.6 million dollars in purchases have been approved by the Federal Civil Defense Administration and procurement with the balance will be approved on or before February 22, 1952. In certain cases, orders were delayed to obtain results of tests of more economical equipment or to obtain additional expert medical evaluation as to which products would be most effective. At any rate, in the short space of 3 months we have approved orders against virtually all of the 1952 appropriation of $50,000,000. In addition, we have definite plans assuring the use of the balance of five or more million dollars from the 1951 appropriation not matched by the States.

The bulk of the purchases is being made through the Armed Services Medical Procurement Agency. A good part of the items ordered for the States is in production and some deliveries are already being made. Deliveries to States and Federal warehouses will be made at a rapidly increasing rate in the coming months. Where State procurement has offered advantages, limited to a very few items, we have approved and aided in such measures, including the furnishing of specifications.

Procurement of the various items must be phased in a planned manner over several months. This was assured by our arranging for medical purchase by one agency for both Department of Defense and Federal Civil Defense Administration. This method would permit adjustments of delivery schedules against military and civil defense operational needs, whichever may be greater at any time. This is made all the easier by our adoption of standard Department of Defense specifications, resulting also in curtailment of the numbers and types of items which might need to be transferred to meet changing operational needs. In addition, there are advantages to the defense industrial effort when producers may deal with a single governmental procurement agency handling almost all defense medical supply procurement.

It is estimated that the funds made available up to this time will provide:

Enough supplies and equipment controlled by the States for approximately 5,000 first-aid stations which would furnish first aid to casualties.

Minimum medical and surgical supplies, controlled by the Federal Civil Defense Administration, needed for continuing emergency medical care of approximately 2,000,000 surviving casualties, through the first postattack week only.

3,500,000 blood-donor recipient sets and blood bottles.

1,500,000 paper blankets.

Approximately 900,000 units of blood plasma.

Approximately 800,000 units of plasma expanders.

Certain other necessary medical and surgical supplies.

I would like to stress the fact that the program described above will procure certain medical and surgical supplies and equipment to provide only 1 week of emergency medical care on a very minimal basis for approximately 2,000,000 casualties surviving the first 24 hours after an attack. However, to compensate for increased casualty estimates resulting from anticipated greater enemy capabilities in the next year, much larger quantities of these same items must be obtained in fiscal year 1953. Not only will such additional quantities be vitally needed, but also substantial quantities of other essential items, such as basic equipment for improvised hospitals, oral and intravenous fluids, and containers for the shipment of whole blood, must be procured and stockpiled. Moreover, provision must be made for special weapons defense and related supplies and equipment, such as nerve gas treatment supplies; antibiotics and biologics specially required for protection against biological warfare; radiation detection and measurement instruments; and wraps for the temporary burial of the dead. In all, the President's budget would provide $193,000,000 in fiscal year 1953 for the purchase of such necessary medical, health, and related special weapons defense supplies and equipment.

In summary, I believe the record of the Federal Civil Defense Administration's utilization of available appropriated funds indicates what can be done when means are made available. For example:

The Federal Civil Defense Administration has utilized virtually all the $50,000,000 made available for medical supplies in the 1952 appropriation and, in the manner authorized, will commit by March 31, 1952, the $20,000,000 made available for medical supplies in the 1951 appropriation.

The situation as to stockpiling is unsatisfactory both in volume and quantities of supplies available, as well as in the time within which adequate quantities might become available. As you have indicated in your letter, these are some of the limitations within which the Administration must function.

The Federal Civil Defense Administration has facilitated procurement of necessary stockpiles by State civil defense agencies desiring such action. We will continue this, of course. However, the majority of the States have chosen to benefit by the several advantage of Federal procurement in a manner indicated above.

Public interest in clear-cut answers to these questions, which are of the greatest importance to all Americans, is of sufficient concern to us in this Administration that we have released interim reports of our progress in procurement of medical supplies and equipment. As a matter of fact, the most recent release was prepared a day or so before you transmitted your letter, and was published Sunday, February 10, 1952. The records to date indicate rather wide dissemination of the information by the press.

If we can provide you with any further information, I am sure you would let me know.

Sincerely,

J. J. WADSWORTH
(For Millard Caldwell).

*Federal contributions to states for medical supplies and equipment*

| | Federal contributions made to date | Federal share of cost of requests now in process | Federal share of cost of requests being held pending receipt of information | Additional Federal funds which the States estimate they will claim | Federal share of cost of commercial blood plasma requested by States which has not been available but may become so in near future | Total |
|---|---|---|---|---|---|---|
| Total | $8,248,935.65 | $592,880.87 | $272,650.17 | $5,163,308.95 | $1,031,697.00 | $15,309,472.64 |
| 1. Alabama | | | | | | |
| 2. Alaska | | | 33,827.09 | | | 33,827.09 |
| 3. Arizona | | | | | | |
| 4. Arkansas | | | | | | |
| 5. California | 1,992,319.01 | | | 125,746.50 | 624,253.50 | 2,742,319.01 |
| 6. Colorado | 19,816.50 | 252.50 | | 10,000.00 | | 30,069.00 |
| 7. Connecticut | 151,951.81 | | | 100,000.00 | | 251,951.81 |
| 8. Delaware | 25,137.73 | | 18,612.71 | | 2,038.50 | 45,788.94 |
| 9. District of Columbia | | 59,996.69 | | | | 59,996.69 |
| 10. Florida | | | | | | |
| 11. Georgia | | | | | | |
| 12. Hawaii | | | 140,381.59 | | | 140,381.59 |
| 13. Idaho | | | | | | |
| 14. Illinois | | 1,347.27 | | | | 1,347.27 |
| 15. Indiana | | | | 127,850.00 | | 127,850.00 |
| 16. Iowa | | | | 25,000.00 | | 25,000.00 |
| 17. Kansas | 48,774.64 | | | 5,000.00 | | 53,774.64 |
| 18. Kentucky | | | | 20,000.00 | | 20,000.00 |
| 19. Louisiana | | | | 250,000.00 | | 250,000.00 |
| 20. Maine | | 6,982.14 | | 26,297.62 | | 33,279.76 |
| 21. Maryland | 199,115.82 | 6,562.50 | | | 42,511.50 | 248,189.82 |
| 22. Massachusetts | 286,986.83 | 226,006.12 | | 177,007.05 | | 690,000.00 |
| 23. Michigan | 396,853.59 | | | | | 396,853.59 |
| 24. Minnesota | | 10,939.01 | | 23,146.00 | | 34,085.01 |
| 25. Mississippi | | | 6,358.91 | | | 6,358.91 |
| 26. Missouri | | | 3,743.12 | 700,000.00 | | 703,743.12 |
| 27. Montana | | | | | | |
| 28. Nebraska | | | | 26,840.00 | | 26,840.00 |
| 29. Nevada | | | | | | |
| 30. New Hampshire | | 3,424.00 | 75.51 | 3,741.94 | | 7,241.45 |
| 31. New Jersey | 276,180.40 | | | 162,014.84 | | 438,195.24 |
| 32. New Mexico | | | | | | |
| 33. New York | 4,743,448.14 | | | | 359,856.00 | 5,103,304.14 |
| 34. North Carolina | | | 3,206.71 | | | 27,368.15 |
| 35. North Dakota | | | | 3,930.00 | | 3,930.00 |
| 36. Ohio | | | | 1,200,000.00 | | 1,200,000.00 |
| 37. Oklahoma | | | | | | |
| 38. Oregon | 7,752.46 | 42,216.88 | | 30,700.00 | | 80,669.34 |
| 39. Pennsylvania | | | | 1,975,625.00 | | 1,975,625.00 |
| 40. Puerto Rico | | | 20,782.54 | | | 20,782.54 |
| 41. Rhode Island | 1,883.24 | 5,753.27 | | 5,000.00 | | 12,636.51 |
| 42. South Carolina | | | | | | |
| 43. South Dakota | | | | | | |
| 44. Tennessee | 98,715.48 | | | | | 98,715.48 |
| 45. Texas | | | | | | |
| 46. Utah | | | 18,203.84 | 10,000.00 | | 28,203.84 |
| 47. Vermont | | | | | | |
| 48. Virginia | | 4,350.63 | | | | 4,350.63 |
| 49. Virgin Islands | | | | | | |
| 50. Washington | | 224,206.31 | | | 3,037.50 | 227,243.81 |
| 51. West Virginia | | | | | | |
| 52. Wisconsin | | | | 155,410.00 | | 155,410.00 |
| 53. Wyoming | | | | | | |
| 54. Guam | | 843.55 | | | | 843.55 |

## SOVIET MILITARY BUILD-UP

### A COMPARISON OF THE NATIONAL INCOME AND NATIONAL DEFENSE EXPENDITURES OF THE UNITED STATES AND THE SOVIET UNION IN 1949

[Prepared by the Legislative Reference Service of the Library of Congress at the request of the Joint Committee on Atomic Energy]

Elden E. Billings, International Financial and Fiscal Economist, Economics Section, November 10, 1950

In order to compare the national income of the Soviet Union with that of the United States, one must realize that the statistical approach is made from an entirely different basis. Russian statistics are based upon the Marxist concept of what is and what is not productive labor. Thus, only production and distribution of material goods are taken account of in the Russian national income estimates; services rendered by the Government, personal services, and passenger transportation are excluded. In national income estimates of the United States, on the other hand, these items are an important part of the total. No information is available which would show the effect of reparations and foreign trade upon the size of the Soviet national income. Perhaps the main difficulty of Soviet national income estimates, however, is that the published totals are given in constant prices, in those of 1926–27, while the figures for current governmental expenditure, investment and wages and salaries are all given in current prices. No current price indexes that would make it possible to correlate the two have been published since 1931, although they are available to the official Soviet statisticians. Since 1926–27 was a year of exceedingly high prices, particularly for industrial items, indexes based upon such prices must exaggerate the increase in the national income.

Colin Clark, an internationally known authority on national income, had the following to say concerning the Soviet national income:[1]

"The principal factors which make very difficult any interpretation of Russian income statistics are as follows:

1. A variable but substantial proportion of agricultural output is requisitioned as taxation in kind, or has to be sold at very low prices.
2. During all but a few years of the postrevolutionary period, rationing has prevailed (on varying scales), with a recognized open-market price for goods far higher than the rationed price.
3. The turn-over tax is extremely high, and constitutes, even in peacetime, more than half of the total retail turn-over.
4. Money wages and prices have risen rapidly throughout the postrevolutionary period.
5. Imports have been virtually excluded, leading to very high-cost production of certain commodities.
6. Income statistics are expressed in prices of 1926–27, a year in which exceptionally high prices prevailed for some newly produced industrial goods.
7. A large (but rapidly diminishing) proportion of the population consists of peasant families. When this group consumes goods produced on their own farms, the real value of their consumption, if valued at the retail price level of western countries, considerably exceeds their real income if measured by the value of their production only. In other words, peasant economy escapes the large charges for transport and distribution which are necessary in an urban economy."

Given these qualifications, one might compare the Soviet and the United States national income for the calendar year 1949. On the basis of a formula established by Paul A. Baran (see attached article), Mr. Leon M. Herman, of the Department of Commerce, has worked out a number of calculations for the purpose of arriving at some rough dollar figures that might measure approxi-

[1] Clark, Colin, "Russian Income and Production Statistics," The Review of Economic Statistics, vol. XXIX, No. 4 (Nov. 1947), p. 215.

mately the scope of Soviet national income and military expenditures in 1949. On the basis of the above, Mr. Herman calculated:

| | *Billions of dollars, 1949* [2] |
|---|---|
| Gross national product | 102.2 |
| National income | 72.0 |
| Armament costs, total | 19.3 |
| New military investments | 3.3 |
| Armament production | 8.1 |
| Direct expenditures in Army and Navy | 7.9 |
| (Armament costs as percent of national income) | 26.8 |
| Total industrial production, gross | 80.7 |
| Total budget expenditures | 41.0 |
| Official military expenditures | 8.2 |

[2] U. S. Department of Commerce. Office of International Trade. The Soviet War Budget, p. 1.

The following qualifications must be noted in the above figures, however. The Department of Commerce study states:

"The above figures are in the main derived from official ruble figures expressed in 1926–27 prices, converted to 1940 dollars, on the basis of a fairly reliable Soviet formula, and then adjusted to 1949 dollars. No current rubles were used directly but only for the purpose of arriving at a percentage relationship to other figures for which a 1926–27 value was available. Hence, they inevitably reflect a certain bias favorable to the Soviet point of view." [3]

On the basis of these qualifications and restrictions, the 1949 national income for the Soviet Union and the United States follows:

| | |
|---|---|
| National income, 1949: | |
| Soviet Union | $72,000,000,000 |
| United States | 216,831,000,000 |

In comparing defense expenditures of the Soviet Union and the United States, one is faced with much the same problems as in comparing national income. The official Soviet budget figures show defense expenditures of 79,200,000,000 rubles ($19,800,000,000), and estimated expenditures of 79,400,000,000 rubles ($19,850,000,000) for 1950. The ostensible percentages of the budgets for the 2 years which are devoted to defense are: 1949, 19.2 percent; 1950, 18.6 percent. For the United States, on the other hand, total defense expenditures in the fiscal year 1949 were $12,158,000,000, or for the calendar year 1949 (to put them on a comparable basis with the Soviet figure), $12,392,000,000. For the fiscal year 1950, defense expenditures were $12,378,000,000. The percentages of the budget and expenditure figures are: 1949 (fiscal year), 30.4 percent; calendar year, 29.7 percent; and 1950 (fiscal year), 30.8 percent. The United States News and World Report has estimated the Soviet Union's budgetary expenditures for national defense at 20 percent of the national income. This, according to the magazine, means that the proportion of the national income spent by the United States Government for defense is only a third of the proportion being spent by the Soviet Union. Neither of the countries' defense expenditures includes atomic research. Thus, it would seem that the United States spends a higher percentage of her budget on defense than the Soviet Union, but one must add a number of qualifications which largely vitiate this viewpoint.

The budget of the Soviet Union handles the great bulk of the revenues and expenditures of the country, while that of the United States covers only the central government. In order that the two budgets might be compared, it would seem necessary to add to the United States budget, the budgets of the States, counties, municipalities, etc. Most capital investments in the United States are made by private investors and do not appear in the Federal budget, while all capital investment appears in the Soviet budget. Most of the Soviet national income is distributed through the budget while only a fraction of that of the United States is distributed through the Federal budget. Military appropriations are hidden in various parts of the Soviet budget. Capital investments in-

[3] Ibid., p. 2.

clude subsidies to armament factories and funds for building new war plants. Another very large block of expenditure is for the secret police—the MVD. It is an army in itself—guarding the railway system and maintaining troops near large cities to assure internal security. Other expenditures (as calculated by Alexander Baykov and G. R. Barker[4] includes expenditures on the Ministries of Internal Affairs and State Security. Expenditures on social-cultural affairs include war pensions. It is possible that undesignated items in the Soviet budget contain military expenditures. Atomic energy research, for example, does not appear at all in the Soviet budget.

Bearing in mind these qualifications, the following is a comparison for the defense expenditures of the Soviet Union and the United States for the calendar year 1949.

| Defense expenditure: | |
|---|---|
| Soviet Union | [1] $19,800,000,000 |
| United States | 12,392,000,000 |

[1] This is somewhat higher than the Department of Commerce figure cited on p. 2, but is merely a conversion on the basis of the present rate of the ruble (4 to the dollar) taken from the actual Soviet estimate of defense expenditure in 1949, i. e., 79,200,000,000 rubles.

There are other qualifications which might be pointed out in passing, but which are practically impossible to evaluate in a short paper of this nature. Some of them are differences in the purchasing power of money, differences in the cost of living in the two countries, and differences in the availability of products of all kinds.

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[4] Baykov, Alexander, and G. R. Barker, "Financial Developments in the U. S. S. R.," Bulletins on Soviet Economic Development. No. 3 (Aug. 1950), p. 19.